Lectures
ON THE
DISEASES OF THE LACHRYMAL APPARATUS.

Delivered at the Moorfields Hospital,

BY GEORGE CRITCHETT, ESQ., F.R.C.S.,
SURGEON TO THE ROYAL LONDON OPHTHALMIC HOSPITAL.

LECTURE III.

Treatment; old methods abandoned; a new era introduced; analogy between lachrymal and urethral diseases; same system of treatment required; modes of opening the canaliculi; method of probing; form and size of probes; importance of emptying the sac; tendency to relapse; complications; new method of dilating the duct; cases unsuited for this plan.

I PROPOSE in this my third and last lecture upon this subject to consider the treatment of the various morbid conditions detailed in the preceding lecture. The delicacy, minuteness, and intricacy of the anatomical arrangements appertaining to these parts to which I have already alluded on a former occasion, whilst they explain the persistent nature of these affections and their constant tendency to further morbid changes, materially complicate and embarrass the treatment.

A glance at the literature of this subject shows how much ingenuity has been expended, and in most instances wasted, in devising means to overcome the inherent difficulties of the situation. It would be both tedious and unprofitable to enumerate and describe the various abortive attempts that have been made from time to time to remedy obstructions of these parts. Some methods entirely failed, and others produced so much deformity and inconvenience as to be felt by many to be a worse alternative than the disease to remedy which they were adopted. The result of this was that some of the best authorities, representing a period just antecedent to the present, recommended the abandonment of all local treatment; and one ophthalmic surgeon of eminence in Paris strongly advocated the obliteration of the lachrymal apparatus, thus cutting the Gordian knot he had failed to untie.

Such was the aspect of affairs when Mr. Bowman gradually worked out and developed a plan of treatment which introduced a new epoch into this subject—a plan which has been adopted with various modifications by those ophthalmic surgeons in this country and on the Continent who represent progress. It would be too much to say, in a series of morbid changes so varied, so complicated, and so extensive as we sometimes find, that disease of the lachrymal apparatus has been brought fully under control; but very much can now be done, quite as much and perhaps more than in stricture of the urethra, with the diseases of which we here find a strong analogy. A consideration of the pathology of the sac and nasal duct suggests the propriety of dilating the strictured part or parts by the use of a system of probing that should include the entire canal. The impediment to the employment of this method is to be found in the narrowness, tortuousness, and inaccessibility of the inlets and outlet to the lachrymal sac and nasal duct. The problem to be solved was to obtain such access to the lachrymal sac as would permit the passage of a probe of moderate size, and, as a consequence, the treatment of the stricture or obstruction in the nasal duct. This difficulty Mr. Bowman has overcome, and has explained in a paper published in the "Ophthalmic Hospital Reports" for October, 1857. He showed that the small fibro-cartilaginous aperture at the commencement of the canaliculi was in reality the only firm, contracted, undilatable part of the passage, and that when that ring is divided, a loose membranous channel is discovered that admits of some distension, and of the passage of a probe of moderate size, about the twentieth of an inch in diameter, into the sac. This valuable suggestion at once placed the treatment of lachrymal obstructions nearly on a par with stricture of the urethra. It must be admitted that the delicacy and minuteness of the parts concerned, the abruptness and angularity of the curve at the point where the canaliculi join the sac, and the cæcous boundaries of the duct, throw the balance of difficulty on the side of contractions and morbid conditions of the lachrymal passages; but, at the same time, experience now abundantly shows that many of these cases are capable of permanent relief, and even of complete cure, and that in nearly every instance important benefit may be obtained. In a disease presenting such varied modifications and changes of condition and structure, it would be unfair to expect a restoration in all cases to the normal standard and function. Nevertheless, very much can now be done, even where all looks most unpromising.

In order fully to explain the method of treatment that is best suited to each stage of this disease, I propose in the first place to consider the various stages of the operation of probing or catheterizing the nasal duct in an ordinary case of obstruction of that part, and the subsequent proceedings necessary for effecting a cure. I will next consider the principal difficulties that are liable to occur, and the complications that arise; and lastly dwell briefly upon those cases in which the morbid changes are too extensive to admit of permanent relief by this simple method, and in which a more severe and radical plan of treatment seems to be indicated.

We will suppose, in the first place, that we have an ordinary and average case of nasal duct obstruction, with the sac somewhat enlarged and thickened, and secreting a glairy, mucous, or puro-mucous fluid, which, on making pressure, escapes through one or both puncta, and cannot be made to pass down the nose. The first step of the operation of catheterizing the nasal duct is the same as in those cases of displaced puncta which I have described in my first lecture on this subject, and it may be performed in the same way. The canal having been straightened and tightened by drawing the lower lid slightly downwards and outwards, and fixing it with the finger against the lower margin of the orbit, a fine pair of scissors with the points slightly rounded may be employed; one blade may be introduced into the punctum, and passed along the canaliculus as far, or nearly as far, as the caruncle, and then with one rapid snip the punctum and a portion of the canaliculus is laid open. This is the quickest and easiest method of effecting the operation. Other plans are sometimes adopted. A fine grooved director may be introduced through the punctum and along the canal, and then, the parts being drawn out firmly, a sharp narrow triangular knife may be passed along the groove. This plan is preferred by some because the canaliculus can be divided more freely and to a greater length. It is even recommended that the director should be passed into the sac, and that a long narrow knife should be carried on into the sac, so as to facilitate the subsequent passing of the probe down the nasal duct. It is, however, only under peculiar and exceptional circumstances that such a proceeding is desirable. It endangers a wounding of the floor of the mucous canal, and the formation of a traumatic stricture. A mucous membrane may be regarded as a very sacred thing; when once injured or destroyed, its place cannot be supplied. No efficient substitute can be found; and although some false passage may be formed, it never can retain the properties of the original mucous tube. This is especially true as regards the delicate aqueducts that convey the tears. Great care, gentleness, and patience are required in the performance of the little operation I am now describing. Another method of opening the canaliculus is to introduce a very fine probe-pointed bistoury, and by a slight sawing upward movement lay it open. In practice I generally employ scissors.

The next stage of the proceeding is the passing the probe. Previous to doing this, it is well to observe whether the contents of the sac regurgitate through one or both puncta; and if only one, whether it be the upper or lower. If the upper, as is not unfrequently the case, it should be laid open in a similar manner to the lower. It is, perhaps, rather more difficult to accomplish than the lower, especially when the patient is nervous and irritable; but a little practice gives the necessary dexterity. As we might *à priori* expect, it is generally found that the canaliculus that permits regurgitation most readily, admits a probe most easily. It is better to be provided with a set of probes graduated of different sizes. Mr. Bowman's set of probes represent a graduated scale of six sizes. Mr. Teale, jun., of Leeds, in a paper which he published on this subject, recommended the use of bulbed probes made upon a similar graduated scale. I usually employ the bulbed probes; I think they pass more readily, and are less liable to lacerate the mucous lining, or to get into a wrong direction and make a false passage.* I usually commence with a probe of medium size. Whichever canaliculus is selected, it should be drawn

* These probes, and the various instruments required in the treatment of these cases, can be procured at Weiss and Son's, Strand.

outwards firmly so as to form a straight tunnel along which the probe may pass. The probe must be carefully introduced into the loose membranous canaliculus, and then gently glided on into the sac; care being taken, as it passes from the open into the closed part of the canal, that it does not pass into the loose cellular tissue, and thus wander away from the sac and form a false passage. If it passes smoothly on till it strikes against a firm resisting wall, it has entered the sac. The direction of the probe up to this time must be inwards and slightly upwards, if it be the lower passage; if the upper be selected, then downwards and inwards. As soon as the probe has entered the sac its direction must be entirely changed. The point of the probe resting in the sac, the handle must be moved in a circle until it is brought on a line with the nasal duct; it must then be gently pressed downwards so as to enter the nasal duct. This requires care and management. If it be felt to strike against some hard resisting medium, it has failed to enter the duct, and is in contact with the bony wall. It must then be slightly withdrawn, its direction must be changed, and it may be partially rotated so as to bring the bearing upon various points until it yields, or gives only an elastic resistance which a little pressure will overcome. The strictured point once passed, the probe will generally pass very readily down to the floor of the nose. This once accomplished, a very important step towards cure has been gained. It will generally be found that the contents of the sac can be pressed down the duct, instead of regurgitating; and the patient should be directed to empty the sac frequently, and, if possible, downwards into the nose. This facility in emptying the sac is a great advantage in the restoration of parts to a healthy state. The probe that has been passed may be left in for a short time, and in three or four days the operation may be repeated, and an attempt may be made to pass a larger size. Gradually the sac will resume its normal dimensions, the secretion from it will cease, the tears will flow in the right direction, and the case will be relieved. A tendency from time to time to relapse is not unfrequent; but an occasional passage of a probe will set everything right again.

We may now consider the principal difficulties that are liable to occur, and the complications that arise in the treatment of these cases. The first condition of this kind to which I would direct attention is a contracted, unyielding state of the canaliculi. Unless this can in some way be overcome, it seriously impedes the subsequent treatment of the case. We may endeavour to meet the difficulty, either by trying to stretch and dilate the passage, or by laying its entire length open upon a director as far as the sac. The dilatation may be effected by means of a delicately-formed instrument, made by Weiss at the suggestion of Mr. Bowman, upon the principle of the female urethra dilator. I sometimes employ for the same purpose a material respecting which I shall have more to say subsequently, and which has the double advantage, that it can be fined down to almost any degree of tenuity, and when introduced into the canal, and subjected to moisture, will gradually increase to three or four times its previous diameter. In this way, by care and patience, a sufficient space may be obtained to allow a probe of average size to be passed. I rather prefer this method to any more forcible and rapid proceeding, as I consider it better to stretch than to tear and lacerate the membrane. If the object cannot be gained in this way, a long, narrow, finely probe-pointed bistoury must be passed along the canaliculus into the sac, and then, by a gentle sawing movement, the entire length of the tube must be opened and enlarged. I avoid this proceeding as much as possible, for although it facilitates the subsequent passage of a full-sized probe, it is often followed during the healing process by contraction more troublesome than the previous condition. We also meet with cases in which it is impossible to pass a probe or even a fine director into the distended sac. This may arise from a change in the direction of the canaliculus, causing it to curve backwards somewhat behind the sac, and making a sort of valvular closure, as evidenced by the slight regurgitation of fluid on pressure. Or the communication with the sac may be quite closed, and in that case the contents may either be made to pass by means of firm pressure down the duct, or in some instances it may be completely shut in. Under these circumstances a canular needle must be passed along in the direction of the sac, and made to penetrate its wall.

Another source of difficulty in the treatment of these cases is the tightness and firmness of the strictured part or parts, and the strong tendency they show to reclose after the passage of a probe. Various contrivances have been devised in order permanently to overcome the stricture. A modification of the old-fashioned style has been passed in a similar manner to the probe, and left in for a period varying from a few days to a few weeks in the hope of establishing a free and permanent passage. Experience, however, proves that there are serious objections to this plan; it often creates considerable pain, irritation, and even inflammation, during its residence in the canal, and, by the pressure it exerts upon the mucous lining, causes ulceration and destruction of this membrane. The result of this is not uncommonly a firmer and more invincible contraction than before, the treatment of which is much more difficult because the greater part of the true mucous lining is gone, and can never be restored.

In such cases as these, I have recently been in the habit of employing small bougies, formed of a species of sea-weed, the dried stem of sea-tangle—*Laminaria digitata*. This substance was first brought before the notice of the profession by Dr. Sloan, of Ayr, in the *Glasgow Medical Journal* for October, 1862.* It possesses several important advantages: it can be worked up of any size and length; it is quite smooth, firm, and elastic in its dry state, so that it can be passed very nearly as readily as a silver probe. When exposed to moisture, it expands to at least double, and even treble, its former size. A power such as this, cautiously and skilfully employed, may be rendered of great value. I have succeeded in conquering some very obstinate and inveterate cases of long standing. I generally commence with a rather thin, fine bougie that will readily pass, and I leave it in about ten minutes. At the end of that time it usually offers some resistance as it is drawn out; it is swollen, and at one or more points it is contracted, showing the seat and extent of the stricture. This is usually found to be a little below the sac, at the commencement of the duct, or only a short way beyond this point. Another bougie may now be used, partly covered with copal varnish in such a way as to limit the dilatation as much as possible to the strictured part. By gradually increasing the size of the dilatable part, and by leaving it in a somewhat longer period,—twenty minutes or half an hour,—a powerful effect may be produced upon the constricted portion of the canal. In fact, the principal risk in the employment of this material consists in the excess of power you possess. If a bougie be introduced of such a size as to pass in rather tightly, and if it be left in the canal for half an hour, it will be found to have expanded to such a degree beyond the seat of stricture that its removal is attended with considerable difficulty, and with some violence to the strictured part, as the swollen extremity forces its way through it. This, however, is an excess in the right direction. Every good mechanic knows that if he has a superabundance of force, he has only to subdue it to his will and regulate the direction of it in order to obtain from it a slavish and useful action. It is, in fact, the only way in which the principle of gradual dilatation can be applied with advantage to strictures of the nasal duct. I have found it very useful, and I believe it is capable of further development. It will not, of course, supersede the use of probes, but it will co-operate with them.

Another point in the treatment of these cases is the extent to which the sac becomes altered both in size and condition. These changes I described in the last lecture. Where, for instance, the sac has become very much dilated, thinned, and distended with glairy fluid, it is often found that after the stricture has been relieved, and when the contents of the sac can be readily pressed out both through the canaliculi and down the nasal duct, the lax and dilated walls of the sac quickly refill, and do not contract to anything like their normal dimensions. The patient should be directed to keep the sac constantly emptied by pressure with the finger, and as much as possible to keep up the pressure, so as never to allow the cavity to become distended. It is, however, found in practice, that, in spite of every precaution, this will frequently occur, particularly during the night. It is therefore in such cases that some mechanical means of keeping up gentle pressure on the anterior wall of the sac are often useful. I have sometimes employed a truss for this purpose, with a frame-work fixed on the forehead, and an arm coming from it, and so adjusted as to keep up gentle and continuous pressure. In another class of cases the sac is very much thickened, as well as enlarged, the lining membrane villous, and secreting puro-mucous fluid in considerable quantities. A restoration of the nasal duct will not remove the morbid condition of these parts. A similar treatment to that of the last group will be of some value. The injection of a stimulating and astringent lotion into the sac by means of a syringe is useful; but in severe cases something more

* My attention was first directed to this substance by my friend and colleague, Mr. Couper, of the London Hospital, who has made some interesting experiments upon it. The bougies may be obtained at Krône's, surgical instrument-maker, Whitechapel.

than this is required. On one or two occasions Mr. Bowman has dissected out the anterior part of the thickened sac with good effect, the only objection being that it is rather a tedious and difficult operation. Instead of this, I have sometimes freely opened the sac, and applied the potassa cum calce to the interior, so as to destroy a considerable portion of it, taking care not to injure the skin. The cavity thus formed gradually granulates and heals, leaving a scar that is scarcely perceptible, and a sufficient space for the tears to find their way into the nose; or it may be necessary to renew the treatment by probes. The case will be much simplified by the destruction of a large portion of the diseased and thickened sac.

Another complication which I have described in the last lecture is a second cavity, communicating with the original sac, and frequently with the external parts, by means of a sinus. After the stricture has been relieved by probing, it is observed in such cases that a fluctuating tumour still remains, which cannot be emptied by pressure. We may then suspect the presence of a second cavity. This must be freely laid open, caustic applied, filled with lint, and healed from the bottom.

Cases of true fistula lachrymalis, in which there is an aperture in the skin, through which the tears constantly flow, is rather uncommon, and is not very easy to manage. We must endeavour, in the first place, to restore the permeability of the nasal duct in the usual way, and then to close the fistulous aperture by paring the edges of the skin, and bringing them together with fine sutures, so as, if possible, to obtain union by the first intention.

In cases of acute abscess of the sac, I have sometimes succeeded at an early stage, and just as matter is forming, in checking its further progress by freely opening the canaliculi, and passing a probe into the nose, so as to make free inlets and outlets to the sac. At a later stage this becomes impossible, and a free opening must be made through the skin into the sac. No attempt can be made to restore the duct until all inflammation has passed off; but the occurrence of an acute attack renders the success by this method less probable.

There still remain a group of cases, varying in degree, but similar in kind, where the parts are seriously compromised and altered in their condition—cases where the bone and periosteum are affected, where repeated inflammations have occurred in the sac, where there is constant discharge, where sinuses exist, where the skin is discoloured and diseased, where no canal into the nose can be discovered. In such cases we cannot hope to restore a normal, healthy state of parts. The treatment must be palliative, and in some sense obliterative and destructive. A compromise of this kind seems the only alternative. The sac and sinuses, if they exist, must be freely laid open, so as to expose as much as possible the entire cavity. The actual cautery or the potassa c. calce must be thoroughly applied, so as to destroy the diseased parts. If necessary, this must be repeated until granulations fill up the space, and heal up, so as to leave a sound, firm cicatrix. The effect of this is permanently to destroy the entire canal, and thereby to necessitate a constant overflow of tears; but this inconvenience is very small when compared with the diseased condition and constant deformity that previously existed, and which were irremediable by other and less severe means. I am quite of opinion that destruction of the sac should be reserved for the worst form of cases. At the same time, I must add that I have met with several instances in which this operation has produced very satisfactory results, in which there has been little or no deformity, and in which the overflow of tears has been very slight, and has caused but little inconvenience.

I cannot conclude this lecture without drawing attention to the facts that a large majority of severe and complicated cases have gradually arisen from neglect and mismanagement; that the early stages are usually very much under control by the improved methods of treatment I have endeavoured to set forth; that almost every form of the disease, however severe, admits of some important benefit; and that when the subject comes to be fully understood by the profession, and suitable early treatment adopted, patients will be easily and quickly cured of a disease the treatment of which was a few years ago almost given up; and thus a reproach which has hitherto hung over this branch of surgery will be removed.

DEATH OF PROFESSOR SCHÖNLEIN. — This eminent representative of medical learning in Germany died at Bomberg, in Bavaria, on the 23rd ult., of stricture of the trachea, at the age of seventy. Dr. Schönlein had, since 1819, held professorships in the Universities of Wurzburg, Zurich, and Berlin.

DIETARY IN DISEASE.

BY EDWARD SMITH, M.D., F.R.S., F.R.C.P.,
ASSISTANT-PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

I PURPOSE, in a short series of papers, to state, in the most concise manner, the views which I entertain, and the grounds of them, in reference to the most suitable dietary in certain conditions of disease; and, in order to avoid repetition and misconception, I shall premise two general observations—viz., that as in cases of disease there are degrees in severity and progress as well as certain exceptional conditions, I purpose to refer to those which present the usual symptoms, and have the fully developed effects of the disease, but are nevertheless in a remediable stage; and also that I do not intend to consider the pathology of disease further than may be necessary to establish bases for treatment. It will also be impossible for me to discuss at length the arguments by which any particular statement may be supported, but must be content to refer to the works of authors of the best repute, and to my own papers in the "Philosophical Transactions," or the separate works on the "Cyclical Changes" and on "Consumption in its early and remediable Stages."

I. DIABETES.

Wasting is the central condition of diabetes, around which all the other symptoms which mark the progress of the disease group themselves.

This is not due to defect of ingesta, for, contrary to other states of wasting, the appetite for fluid and solid food is increased; the egesta are also increased, both absolutely and relatively to the ingesta.

The wasting of the body must be almost exclusively of the soft tissues, and hence must be of fluid (seeing that nearly 80 per cent. of the weight of the body is water) and fat and other products of tissue-waste. In this disease the wasting is—

1st. Of fluid, and that only through the kidneys; for the skin, lungs, and bowel emit rather less than in health.

2nd. Of sugar, either eaten as sugar ready formed, or produced in the alimentary canal from starch which had not been converted into fat and deposited in the tissues, or into carbonic acid and emitted by the lungs; and in the absence of starch, from the animal tissues.

3rd. Of urea, the chlorides and other salts; for whilst the quantity in each ounce of urine is lessened, the total amount emitted daily in the stage of disease preceding extreme emaciation is increased.* When much nitrogenous food is given, urea is further augmented in quantity, and may then be more the product of food than of tissue.

4th. Of fat, which is used by the function of respiration.

Let us consider each of these as indications of treatment.

1. *The fluid.*—Without going beyond our depth, we account for the dryness of the skin and fæces by the excessive elimination of water by the kidneys, since the same correlation is observed daily in both health and disease. The thirst is consequent upon the excessive excretion of water, as it is under the influence of exertion or heat in health. Hence to diminish the latter and increase the former we must lessen the excessive excretion of water by the kidneys. The excretion is increased by the ingestion of fluids, whether separated or combined with solids; and so long as the latter is uncontrolled it will support or increase the former. In scarcely any cases of diabetes is the quantity of ingested fluid recorded; in exceedingly few has it been limited, and where limited the restriction has been extreme, and the quantity allowed has been below that needful in health—as, for example, a pint and a half of fluid. Yet nothing has been more clearly proved than that the emission of fluid from the body is increased or diminished by the imbibition of it, and that a certain supply is necessary for the due performance of vital actions. Hence the quantity must be limited; but not in a sudden manner, since the circulation has in a degree become accustomed to this large ingestion and emission of fluid, and to suddenly diminish the volume of the blood might arrest all vital actions; but by degrees and steadily, until it shall scarcely exceed, but be not less than, that in health—as, for example, in the fluids 3½ lbs. (3 pints), and in the solids 1½ lbs.

* In a case which ended fatally the quantity of urea emitted daily in January was found by me to be as follows: 665, 634, 561, 700, 650, 650, 816, 792, 835, 720, 552, 540, 540, 610, and 533 grains.

What relation has the sugar to the water? Excessive elimination of water alone is more easily controlled than when sugar is largely present with it. Hence are both due to some anterior and common cause? or is the sugar a diuretic agent? In my experiments upon myself in health, I found sugar to promote diuresis when taken with water only on an empty stomach in the morning; and although this was not always the case, the effect was so frequent that in the treatment of diabetes the mutual relation of the water to the sugar should be so regarded, as that water is necessary to the emission of sugar, and sugar is promotive, within limits, of the emission of water. Hence another reason for limiting the ingestion of water, and another explanation of the partial inefficacy of the plan; for if sugar be a diuretic, it will abstract fluid from the tissues if there be none to spare in the blood, and thus increase waste.

What relation have the urea and salts to the water? There is no evidence to show that urea and the chlorides are diuretic, yet they require water for their elimination; and, *cæteris paribus*, as the water is increased daily so also (but not necessarily in proportion) will be the excretion of the urea and salts. Hence another reason for controlling the ingestion of water.

2. *The sugar.*—The daily ingestion of separated and combined sugar in health is from two to four ounces; but sugar is produced in the primary transformations of starch within the body by the action of the saliva and the pancreatic juice, and also in however small or large a proportion) from the animal tissues. Both classes of foods agree in furnishing carbon, hydrogen, and oxygen, as carbonic acid and water, and perhaps free hydrogen, in their transformations, and differ chiefly in that flesh contains nitrogen and a larger proportionate quantity of fluid, and is eaten in much less amount than starchy foods. Hence, if for no other reasons, starchy foods will be the chief sources of sugar; but when flesh and other animal foods only are eaten, the converse will be the case. Recognising the arrest of our knowledge at the point of the non-conversion of sugar into its subordinate elements, and finally into carbonic acid and water, (whether, with Bernard, we admit the conversion of the amyloid substance of the liver into sugar, or, with Pavy, believe that sugar is not converted into amyloid substance during life, and is subject to no transformation,) the aim must be both to lessen the source of the sugar and to promote the process of assimilation. *For the former we lessen the ingestion of sugar and starch—the chief sources of the sugar; and for the latter, increase the ingestion of nitrogen—the chief excitor, in the absence of exertion, of vital action.*

Hence the supply of the almost purely starchy foods, as arrowroot, tapioca, and sago, and the starchy foods poor in nitrogen, as rice and potatoes, should be entirely cut off, whilst the more highly nitrogenized vegetable foods, as wheaten flour, oatmeal, barleymeal, or ryemeal, must be used only within the narrowest limits. The highest nitrogenous foods of this class, as peas, beans, and lentils, if starchy food be given at all, should be eaten alone, or eaten with sharps—the inner husk of wheat. Beans in the whole scales should not be given, since only the inner part is digested, whilst the outer and by far the heavier portion passes off by the bowel; and hence bean, unless it could be taken in great quantities, can afford only an inconsiderable amount of nutriment.

Separated sugars have been given purposely as an article of food in diabetes; and why should they not be given? If the quantity of sugar excreted be increased only by the amount ingested, the chief effect has been the waste of so much food. The treatment is so far rather useless than injurious; but whether the mere absorption of so much useless matter, followed by its rapid excretion from the blood, interferes with other vital processes, and thereby does harm, is not known. If sugar act as a diuretic, its presence must be injurious; but if not, the evil which it does may be fully counteracted by the good effect of other components of the food with which it may be associated, as in the use of milk. *But sugar cannot be regarded as food when it is given to a diabetic patient*, and since it does exist in the urine, it is better that it should be produced from starch than given ready formed, since the transformation of the latter produces animal heat, whilst the mere absorption of sugar into the blood does not increase heat. Well-fed flesh should be allowed, since the juices are rich in nitrogen, and the whole lean substance has much nitrogen in proportion to the carbon. In like manner, the preparations of gluten, albumen, and gelatin, although containing about 40 per cent. of carbon, are the richest foods in the proportion of nitrogen to carbon. Skimmed milk, and butter-milk, and then new milk, rank next in this relation, and at the same time supply fluid.

But with every attempt at limitation in the quantity of starch and sugar, a quantity of carbon and hydrogen must be allowed at least equal to that used in health, or wasting will occur both from defect of ingesta and excess of egesta; and as I know, conditions allied to scurvy, and even death itself, may result, and have resulted, from this so-called remediable starvation. In a state of quietude in health not less than 9 oz. of carbon, and with ordinary exercise not less than 10 oz., must be supplied daily. These quantities, apart from the hydrogen, may be found in from 31 oz. to 35 oz. of bread, in about 13¼ oz. to 15 oz. of fat, and in about 8 to 9 pints of new milk, and 9 to 10 pints of skimmed milk or butter-milk. It is very difficult to assign the equivalent in meat, since it depends upon the amount of fat contained in its juices, or laid up separately with the flesh, but ordinarily from 26 oz. to 29 oz. of meat would be required to furnish that amount of carbon. Hence it is easy to supply enough carbon for the production of animal heat from either separated or combined fats; and since, in the absence of starch, this is the chief source of the carbon which is converted into carbonic acid, we must trust to fat and oils as to a sheet anchor. The nitrogen to be supplied in diabetes, even when improvement has taken place, must not be less than 300 grains daily, and the quantity may be increased indefinitely, subject only to the limitation in the carbon which is associated in foods with it.

3. *Urea and salts.*—The quantity of these substances emitted must not be greater than the equivalent supply in the food, since otherwise they must be more abundantly derived from the tissues. Abundant nitrogen in food and a large emission of urea are proper. When, in the last stages of the disease, the digestion is very much weakened, a large part of the nitrogenous food will pass off by the bowel, and will not be converted into urea; and hence, with abundant food, the urea will be less than the equivalent nitrogen in the food.

4. *Animal heat.*—The production of animal heat is greatly lessened in diabetes, since so large a part of the healthy chemico-vital transformations of food does not occur; and in order to maintain a due amount, it is essential that fat and other animal food capable of final transformation into carbonic acid should be continually given. The condition of the skin aids in lessening this evil, since the diminution in the vaporization saves heat, and heat is chiefly lost by the less costly method of radiation. When sufficient woollen clothing is worn, and heat is supplied directly by hot food, the evil is proportionally lessened.

It may not appear philosophical to try to induce the conversion of sugar by secondary agencies, or the elimination of fluid by other organs than the kidneys, and by way of derivation; yet all the usual efforts to maintain health tend to that end: as, for example, exertion in the open air, which, through increase of the respiration, will increase the elimination of the final products of the conversion of sugar—carbonic acid and water, and by the increase of capillary action will tend to increase perspiration. Hence, exertion and free exposure to the air in the early periods of the disease are very important. The use of tea is also very beneficial, since it tends to increase both the respiratory and the cutaneous actions.

Thus, a summary of the proper diet in diabetes is as follows:—

1. *Fluids.*—To be limited by degrees daily until they shall not exceed five pounds and a half in both fluid and solid food. Of this quantity two to three pints should consist of new or skimmed milk, and one pint, or less, of tea. In the cold season and at night they should always be given when hot. Of all alcohols brandy is the best, and may be given with water only, or added to milk, or beat up with egg and milk, and given several times daily. No fluid should be given in greater quantity than half a pint at a time, and when milk is reduced in volume by cooking, the daily quantity of fluid must be made up by an additional supply of the same or other fluid.

2. *Solids.*—Dr. Prout's combination of eggs and milk (with sharps substituted for bran) is excellent. Four ounces of sharps and 4 oz. of peas, beans, or lentils may be made into bread or pudding, with milk, or into omelettes with eggs and herbs. Eggs and gelatin may be given when starchy food cannot be altogether intermitted. Eggs, gelatin, cheese, gluten bread, meat, fat, and oils may be given as largely as they can be digested. The free use of salad oil should be urged, whether in the cooking of fish or flesh, or in the use of water-cress as a salad, or drunk alone, so that several ounces may, if possible, be consumed daily; but as there are in all persons preferences and dislikes in reference to particular fats, that kind—whether butter, suet, oil, or fat of meat—should be allowed which is the most agreeable. Four oz. of sharps, 3 oz. of wheaten flour, 5 oz. of peas, 1 lb. of meat, 2 oz. of cheese, 2 pints of milk, and 3 eggs, will afford more than about 13 oz. of carbon and 1 oz. of nitrogen daily.

Queen Anne-street, Cavendish-square, Feb. 1864.

ON RECTO-VESICAL LITHOTOMY.

CASE OF RECTO-URETHRAL FISTULA FOLLOWING THAT METHOD, CURED BY PLASTIC OPERATION.

BY JAS. R. LANE, F.R.C.S.,

SURGEON TO ST. MARY'S AND THE LOCK HOSPITALS, AND TO ST. MARK'S HOSPITAL FOR DISEASES OF THE RECTUM.

I HAVE read with much interest the remarks of the Parisian correspondent of THE LANCET, published in the number for January 23rd, relating to the plastic operations of Dr. Marion Sims, who it appears is now established in practice in the French capital.

In Dr. Sims' commendation of lithotomy in women by vaginal incision, with immediate closure of the wound by suture, I entirely concur. I have myself performed and strongly advocated the operation (see THE LANCET, January 10th, 1863), believing it to be, in certain cases, the best and safest procedure that can be devised. I should, however, have great hesitation in adopting Dr. Sims' proposition to apply a somewhat similar method to the male subject, by making an incision into the base of the bladder in the median line behind the prostate through the vesical trigone, the wound to be closed by metallic sutures immediately after the extraction of the stone. The case mentioned by your correspondent as having been operated on in this manner by Dr. Bauer, of New York, the sutures being inserted by Dr. Sims, is one of great interest; but, notwithstanding the signal success which was obtained in this instance, I scarcely think the practice is likely to meet with many imitators. An incision of any extent in this situation cannot be made without great risk of wounding the recto-vesical fold of peritoneum—an accident which would be pretty surely followed by fatal results, and on this account incision of this part of the bladder has been condemned by almost every surgical writer. The recto-vesical fold, it must be remembered, is not placed transversely between the points of entrance of the ureters, but projects forwards between them, so as to form a cul-de-sac, which varies in depth in different individuals. In an empty bladder the fold nearly approaches in the median line to the posterior border of the prostate gland, and in most persons the bladder must be greatly distended to carry the line of reflection backwards more than an inch from this point. A longitudinal incision cannot, therefore, be made in this part of the bladder to the extent of an inch without a probability of wounding the peritoneum; and the risk is obviously enhanced in cases where the bladder is irritable, and resents the presence of more than a small quantity of urine, or where it is thickened by chronic inflammation or hypertrophy of the muscular coat, which conditions are not unfrequently present where a stone has been lodged for any length of time in the bladder.

I will not dwell upon the difficulties attending the insertion and fastening of sutures at such a depth within the rectum. I should imagine them to be great, but they are evidently not insuperable, as the result of Dr. Sims' case shows. Indeed, the occasional failure to obtain closure of the whole of the wound by the first operation would be of comparatively little moment were the incision as safe as the vaginal incision in the female.

If, however, there were sufficient reason for believing, with Dr. Sims, that lithotomy by the rectum should supersede other methods more generally approved, and be accepted as *the* operation for the removal of calculus from the bladder in adults—a conclusion which I, for one, am not yet prepared to adopt,—I would suggest that the incision should not be made so far back as recommended by Dr. Sims, but that the knife should be made to enter (from the rectum) into the membranous part of the urethra just in front of the prostate, and be pushed on, with its edge directed downwards, so as to divide vertically the prostate and neck of the bladder to the requisite extent. Sutures might then be used, after the extraction of the stone, to bring the edges of the wound together. An incision of this kind would be attended with no risk to the peritoneum; being in the median line, it would be less likely to cause hæmorrhage than the lateral operation, and less likely to be attended with urinary infiltration on account of the attachments of the pelvic fascia laterally to the prostate being removed from danger; but it would involve the division of one or other of the seminal ducts, for it would be impossible to carry the incision so exactly in the median line as to pass between them.

Lithotomy by the rectum seems to have been first *systematically* advocated in 1817 by Sanson, who suggested two modes of performing the operation. His first method consisted in making an incision in the median line of the perineum through the sphincter ani into the rectum. At the bottom of this wound he felt for the groove of the staff, and punctured the urethra in front of the prostate, carrying his incision backwards in the median line through the prostate and neck of the bladder. In his second method, he commenced by a similar incision through the perineum and sphincter, but opened the bladder *behind* the prostate, and carried his incision backwards through the vesical trigone. The recto-vesical operation was afterwards taken up by some of the Italian surgeons, Vacca Berlinghieri, Géri, and others, though strongly condemned by Scarpa. Speaking of recto-vesical lithotomy, Mr. Sam. Cooper observes:—"In the School of Practical Surgery at Turin, out of five operated on through the rectum three died, although eleven other patients cut in the lateral way all recovered in a short time." Again: "Dupuytren, who tried the recto-vesical operation in six instances as performed by Vacca, lost three of his patients of inflammation within the pelvis, while the three others remained with incurable fistulæ."* I presume these patients were operated on according to Sanson's second method, but this is not clearly explained. Velpeau, in summing up the results of 100 cases operated on by the recto-vesical incision (including both methods), counts "about twenty deaths, the same number of fistulæ, and a variety of accidents which placed the life of some of the other patients in danger."†

Facts such as these caused recto-vesical lithotomy to be almost entirely abandoned. Sanson's second method, unquestionably the more dangerous of the two, has, I believe, no advocate amongst modern surgeons; and with respect to his first plan, the only surgeon who has practised it at all recently is the late Mr. Lloyd, of St. Bartholomew's Hospital. I am not acquainted with the details of Mr. Lloyd's mode of proceeding; but I know that he commenced with the median incision of the perineum, sphincter ani, and lower extremity of the rectum. He then entered the membranous part of the urethra, and reached the bladder through the prostate; but I am not aware whether he made a free incision of the gland, or a limited incision combined with dilatation. In any future operations through the rectum, with a view to unite the wound by suture, I need hardly say that the median incision of the perineum and sphincter should be carefully avoided, as being both unnecessary and objectionable. It is sure to be slow in healing, and it interferes with all the muscles which converge to the central point of the perineum. If room were required at any stage of the operation, it could be readily obtained, without any risk of future inconvenience, by lateral division of the integuments and sphincter muscle.

I have lately had a patient under my care in St. Mary's Hospital with a recto-urethral fistula following a recto-vesical operation, whose case is of interest in relation to the question under discussion.

A. B——, aged nineteen, had suffered from stone in the bladder from a very early age. Two years and a half ago, a calculus the size of a walnut was removed by Mr. Lloyd* in St. Bartholomew's Hospital. The cicatrix showed that an incision had been made in the raphé of the perineum through the sphincter into the rectum. Externally this wound was soundly healed, but on examining the interior of the rectum an opening was discovered behind the sphincter, leading into the urethra immediately in front of the prostate. The aperture was of such a size as to admit the end of a director. The urethra was otherwise healthy, and a full-sized catheter readily passed into the bladder. A probe introduced from the rectum through the fistulous opening at once came in contact with the catheter in the urethra. The incision, in healing, had not left the anal aperture of the usual circular appearance, but had caused it to be prolonged forwards in a grooved or angular form. He had good retentive power over his fæces; but when he passed urine a considerable portion, after escaping through the fistula, flowed along this groove down his thighs. He stated that his urine was voided in about equal quantities in this way and by the penis; the annoyance therefore was very great, for his clothing was continually saturated with it. The escape of course was not constant, as in the case of a fistula leading into the bladder, but only took place periodically and during the act of micturition. Repeated applications of nitrate of silver and of the actual cautery having proved ineffectual, I determined to pare the edges and bring them together with sutures.

Operation, Jan. 13th.—The large end of Bozeman's speculum

* Dict. of Prac. Surg., 7th ed., p. 932.

† Op. Surg., Mott's translation, vol. ii., p. 941.

was introduced into the rectum, and, to afford increased facility for getting at the aperture, I made a slight incision through the skin and superficial fibres of the sphincter on each side. The edges of the fistula were then carefully denuded, and four silver-wire sutures passed. The ends of the sutures were brought through the apertures in a narrow leaden plate, after Bozeman's method, and fastened with perforated shot. The silver catheter which had been held in the urethra and bladder during the operation was then tied in, and the patient sent to bed.

The catheter was retained for two days, but being found to cause a good deal of pain and irritation, it was then dispensed with, and the patient was allowed to pass his urine by his own efforts along the urethra, which he did without pain and without any leakage through the wound. The leaden plate and the sutures were removed eight days after the operation, when the edges of the wound were found to be in good apposition and well united. There has been no escape of urine by the rectum since the operation, and at the date of this report, sixteen days afterwards, he passes the whole of his urine readily, and in a good stream, by the urethra.

I am aware that Dr. Marion Sims, Mr. Baker Brown, and other experienced operators, have for some time dispensed with the use of the leaden plate recommended by Bozeman, or any of its modifications, in plastic operations of this kind, and attain very constant success by simply twisting the ends of the wire sutures. I, however, still adhere to the use of the plate, the only disadvantage of which is the somewhat greater length of time required for its application. I believe it increases the chance of success by protecting the wound from the contact of foreign substances, which is especially advantageous in the interior of the rectum; and by maintaining the sutures at a uniform distance from each other, thus keeping the edges of the wound on the stretch, and preventing them from gaping apart in the intervals between the sutures.

Grosvenor-place, Feb. 1864.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum, et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

CLINICAL REMARKS ON THREE CASES OF VESICO-VAGINAL FISTULA, SUCCESSFULLY TREATED.

(Under the care of Mr. POLLOCK.)

CASE 1.—E. D.——, aged thirty-nine, married, was admitted on December 16th, 1862, suffering from the effects of a vesico-vaginal fistula. She stated that some ten years previously, while in Ireland, she was confined with her first and only child, and that she had been attended by a midwife, who allowed the labour to continue eight days and nights, when delivery took place. The child was dead. During the whole of this time no medical aid was procured. Delirium came on during the latter stages of the labour, so that the patient did not recollect any particulars of what subsequently took place until after the child was born. For about a fortnight after delivery she continued to pass urine naturally, and without difficulty or pain, and she had perfect command over the bladder; but at the expiration of that time she found that her urine passed from her involuntarily. Subsequently she came to England, and some four years previous to the date of her present admission she became an in-patient of this hospital. On that occasion she declined to submit to an operation then proposed to her, and she quitted in a few weeks without any relief.

On examination, the external parts were found very considerably excoriated from the incessant contact of the escaping urine. The urine ran away as freely in the recumbent as in the upright posture. The orifice of the vagina was rather larger than natural, in consequence of a partial rupture of the perineum. Upon the introduction of Bozeman's speculum into the vagina, and upon very slight depression of its rectal surface, an orifice, the size of a two-shilling piece, passing from the vagina into the cavity of the bladder, was readily exposed. The fistula was within half an inch of the anterior lip of the os uteri; the edges of the fistula were cicatrized and healthy; the mucous surface of the vagina was healthy, and free from cicatrices. A large portion of the mucous membrane of the bladder, now red, vascular, and somewhat thickened, prolapsed readily through the fistula, and presented a round, florid nodule of membrane, prominent, and projecting into the vagina at its anterior wall. On the surface of a portion of this mucous membrane, the orifice of one of the ureters could be seen distinctly ejecting every now and then a few drops of urine. The os uteri was natural; but there was a general tendency to prolapse both of uterus and rectum into the vaginal cavity. In consequence of the reduced state of the patient's condition, she was placed on a liberal diet, and ordered to take a mixture of steel and ammonia three times daily; also to have a warm hip-bath night and morning to relieve the irritation caused by the excoriation of the external parts.

Jan. 7th.—As her health had much improved and the menstrual period had just passed off, the operation was decided on for the following day; and she was ordered to take a dose of castor oil at bedtime, and to have an enema in the morning.

8th.—The bowels were freely relieved, and the rectum well emptied by the enema. When fully under the influence of chloroform, the patient was placed in the position of one about to undergo the operation of lithotomy. The introduction of Bozeman's speculum at once exposed the fistula. A silver female catheter introduced into the urethra was readily passed through the fistula into the vagina, but no urine escaped through the instrument; the bladder was quite empty and contracted; it prolapsed freely into the vagina, and required some small pieces of sponge to be introduced to keep it back out of the way of the knife. Without any difficulty, with a thin narrow knife on a long handle, and a pair of long fine-biting forceps, a circular piece of mucous membrane, half an inch in breadth, was carefully dissected off from around the vaginal surface of the fistula. Care was taken that the margin of the fistula should be rendered perfectly raw in its whole circumference, and, at the same time, that neither the muscular wall nor the mucous surface of the bladder should be implicated, beyond the exposure of the muscular tissue of the latter by the removal of the vaginal mucous membrane from its outer surface to the extent of the half-inch round the fistula. Thus the raw surface was made entirely at the expense of the vaginal wall proper. The pieces of sponge were now removed from the interior of the bladder. Five sutures (metallic wire, silvered) were subsequently introduced from before backwards, through the margins of the wound, at equally distant intervals. The middle suture was passed through the anterior lip of the os uteri, as very little mucous membrane remained on its outer surface after the edges of the fistula had been pared. The sutures were introduced half an inch beyond the edge of the cut surface, then carefully passed between the walls of the vagina and the bladder and across the fistula, on through the opposite surface, so as to emerge half an inch from the margin of the wound on the further side. Especial care was taken that the sutures should not pass deeper than the cellular tissue between the vagina and bladder, in order that the coats of the bladder should in no way be included in the sutures. Five sutures were sufficient to completely approximate the entire extent of the margins of the freshly pared surfaces. One by one, each suture was drawn tight; and when the edges of the wound were sufficiently opposed, each wire was secured by twice twisting its ends together. Care was taken that the first twist should be made while each half of a wire was closely in contact with the subjacent mucous membrane across which it ran. Their ends were cut off close to the twist. The wound thus brought together presented a mere line running across the anterior vaginal wall, in the middle very nearly touching the anterior lip of the uterus. All clots were removed from the vagina, and this cavity was carefully sponged out, so as to be left quite dry. No dressing or application of any kind was placed over the wound, or in the cavity of the vagina.

The patient was placed in bed on her side. A gum male catheter (armed with an india-rubber tube and waterproof bag) was introduced into the bladder, but not tied in; the support of a pillow between the knees, and a napkin folded

and placed beneath the catheter, comprised all that was considered requisite to retain the catheter in position. A bedcradle was placed over the thighs to prevent the bedclothes pressing on the tube, and so interfering with a free passage of urine through it.

Twenty drops of laudanum were ordered to be taken every six hours while the patient was awake, with the object of preventing an early action of the bowels. The diet was to be moderate, so that the stomach and intestines should not become overloaded during the time it was desirable the bowels should be locked up.

Very little pain was experienced from the effects of the operation, though the patient found the posture in bed very irksome for the first few days. The day after the operation she was quite comfortable, and her bed was quite dry. The urine escaped freely through the catheter, and was several times in the day emptied out from the bag. The catheter was removed daily, washed, and replaced; a fresh one was used every third or fourth day.

She continued to improve satisfactorily throughout. There was never on any one day any discharge from the vagina, either of urine, pus, or mucus. The laudanum was continued until the 19th of January—i. e., until the eleventh day after the operation; upon which day the bowels acted voluntarily for the first time. During the whole of this period her bed had remained perfectly dry; the urine had all passed through the catheter, and the excoriations had almost disappeared. On the 23rd, the fifteenth day after the operation, the use of the catheter was discontinued; she had now entire control over the bladder. On the 28th she got up and walked about the ward. She had no difficulty, either in the upright posture or in walking, to hold her urine; and she could retain it for three or four hours without inconvenience. During the whole of this time no examination of the wound had been made, no dressing of any kind had been introduced into the vagina, and the sutures had been left undisturbed and untouched since their first introduction.

On the 4th of November, exactly one month from the day of operation, as the patient was in every respect entirely relieved of incontinence, she was placed on the table, and the wound exposed by the introduction of Bozeman's speculum into the vagina. A fine transverse cicatrix marked the line of union of the wound made at the time of the operation; but there was no vestige of a fistulous communication with the bladder. The sutures were still in their relative situations, undisturbed, and most of them bright in appearance. The tissues through which they passed gave no evidence of ulcerative action, but were cicatrized around and about the points of entrance and exit of the sutures. The five sutures were carefully removed by first untwisting their ends with two pairs of long spring, fine-biting forceps; then straightening the entire wire by pulling with the forceps upon each end at the same time; and, lastly, drawing the sutures gently out. The sutures were drawn out thus without any difficulty, or without causing pain, and without their points scratching the tissues through which they had to pass—an evil not often avoided unless the wire be thoroughly straightened previous to its withdrawal.

The patient left the hospital in a few days entirely relieved of her long-continued ailment.

CASE 2.—C. A——, aged thirty, married, was admitted January 28th, 1863, to undergo an operation for the relief of a vesico-vaginal fistula. About five years ago, after a long labour (this being her eighth confinement), she noticed that she had incontinence of urine, which continued without improvement for some time, when she found that the water became thick, and often contained blood. She began to suffer considerably in the region of the bladder with a constant bearing-down pain. Under these circumstances she became an in-patient, under the care of Mr. Pollock, in August, 1860. It was proved on examination that there was a small vesico-vaginal fistula midway between the urethra and os uteri; but this was not enough to explain the severe pain she experienced day and night. A catheter was then introduced into the bladder, and a calculus easily detected. The urethra was now slowly dilated under the influence of chloroform, and in about half an hour the finger could be passed into the bladder, and the stone readily reached. A pair of forceps was then introduced, the stone was seized, and by gradual traction it was extracted through the urethra in a short time. The external orifice of the passage was slightly lacerated by the calculus. The calculus was entirely composed of phosphate of lime, and was half as large again as a good-sized peach-stone.

The patient was so surprisingly relieved of all her sufferings by the removal of the calculus, that she would not then consent to any further operation for the closure of the fistula, and left the hospital still suffering from the escape of urine. She now has much excoriation of the external parts. The incontinence is complete when she is in the upright posture, but when lying down she can retain some urine. She complains of a sensation on moving as if there was another stone in the bladder. On the introduction of a silver catheter, no stone could be detected. Bozeman's speculum passed into the vagina, and made to depress its rectal surface, exposed an opening in the anterior wall, sufficiently large to allow the tip of the forefinger to be passed into the bladder. There was not much prolapse of the mucous membrane of the bladder into the vaginal cavity. To have a warm hip-bath night and morning.

March 5th.—The patient's health being good, and the menstrual period having just passed over, the operation was undertaken by Mr. Pollock. After becoming insensible under the influence of chloroform, she was placed in the position for the operation of lithotomy, and Bozeman's speculum was introduced into the vagina. The fistula was readily brought into view. With a vulsellum the anterior wall of the vagina was drawn slightly forwards, so that the fistula should approach the external outlet somewhat nearer than it did in its natural position. A piece of the vaginal mucous membrane, to the extent of about half an inch round the fistulous orifice, was easily dissected off with the long knife and forceps. The raw surface left was considerably larger than the original fistula; its base was formed by the muscular wall of the bladder, and in the centre was seen the opening through the latter, with a slight prolapse of its mucous surface projecting into the wound. Four sutures (metallic and silvered) were requisite to bring the edges of the whole wound into proper apposition. The sutures were passed from before backwards, so that the line of the wound was across the vaginal wall. Every particular described in the treatment of the sutures in the first case was strictly attended to in this, and therefore it is unnecessary to recapitulate here the steps as regards this portion of the operation. The vagina was wiped out dry, and nothing applied to the wound. The patient was placed on her side in bed, a gum male catheter being introduced into the bladder, and adjusted to a tube in a manner similar to that described in the former case. She was ordered a grain of opium every four hours while awake, and moderate diet.

6th.—She has not slept since the operation, although she has taken the opium regularly. Complains of slight shooting pains in the bladder. The bed is quite dry; secretion of urine abundant, and all passed through the catheter. To take twenty drops of laudanum every four hours instead of the opium.

8th.—Has had very little sleep. Feels poorly and weak, and complains of a good deal of pain in the side, which appears to be dependent on the continued position of lying on one side. The bed is quite dry, and the urine passes entirely through the catheter. A good deal of muco-purulent secretion passes from the vagina, but no urine. No dressing to or interference with the wound is allowed, though the catheter is removed, washed, and replaced daily.

13th.—The discharge continues, but no urine escapes through the vagina. The bowels have not yet acted.

She continued from this time to progress satisfactorily. The catheter was not used after the first fortnight. The bowels acted after an enema ordered on the tenth day after the operation. On the 2nd of April, exactly one month after the operation, Bozeman's speculum was introduced, and the wound exposed. A perfect line of cicatrix marked the direction of the recent wound. The sutures were still as they had been introduced, stationary in their places, unsoiled on their surfaces, and the corresponding surfaces of mucous membrane through which they passed were entirely cicatrized and sound. There was not the slightest vestige of any irritation from their presence, or any sign of ulceration from their pressure. Each suture was removed as described already in the former case.

When lying down, this patient was now able to retain her urine during the whole of the night; she could also retain it whilst sitting; but when walking could only hold it for a short time, or in small quantity: some incontinence came on during walking; this was found to be from urine escaping through the urethra, which, from its previous dilatation and laceration, was not entirely able to command the urine in the bladder when distended beyond a certain extent; but at night, and when sitting and moving about slowly, the patient was quite comfortable and dry. She left the hospital April 18th.

CASE 3.—E. T——, aged forty-five, was admitted Sept. 7th, 1863, suffering from incontinence of urine dependent on an injury to the vagina and bladder sustained during childbirth. Nine weeks previous to her admission she was delivered of her fourteenth child. The labour was tedious and lingering, the

presentation a breech, and instruments were used to deliver her. The child was dead. Soon after delivery she found that she could not retain her urine. On the introduction of Bozeman's speculum into the vagina, a somewhat circular opening, about the size of a two-shilling piece, was exposed on the anterior wall, and found to communicate directly with the bladder. The fistula was about midway between the urethra and os uteri; the edges were perfectly cicatrized and smooth; a long thin cicatrix ran from the margin upwards and to the right side, and rather tucked up the right extremity of the orifice. The rest of the mucous surface of the vagina was healthy. The bladder partially prolapsed through the fistula; the mucous membrane presented a red and irritable condition, and was inclined to bleed on being touched. The bladder contained no urine, and was quite contracted. The external parts—vulva, thighs, and nates—were painfully and extensively excoriated. Her bed was saturated day and night with urine. She was ordered a tepid hip-bath night and morning.

Having entirely recovered from any debility that might have been the consequence of her labour, and as her health was in all respects good, she was most anxious to at once submit to an operation.

Sept. 17th.—The menstrual period having just passed, and the bowels having been freely opened in the morning by medicine and an enema, the patient was placed under the influence of chloroform, and held in the position already described. Bozeman's speculum was introduced into the vagina, and the fistula was readily exposed. The edges of the orifice were pared to the extent of half an inch round, care being taken to remove nothing deeper than the vaginal mucous membrane, but this quite to the edge of the orifice. The wall of the bladder was thus to this extent laid bare; but in no other respect was it interfered with. Thus a circular piece of vaginal mucous membrane was alone removed, the centre being perforated by the opening corresponding to the fistulous aperture through the vaginal wall. Silver sutures were now carefully passed from the anterior to the posterior lips of the freshly cut vaginal mucous membrane. Great care was taken to pass the needle, after burying it in the vaginal wall, not through the vesical wall, but merely between the vagina and bladder; and, when passed across the wound to the opposite side, to make the needle enter under the cut surface of the vaginal mucous membrane, and pass out about half an inch beyond, throughout running between the bladder and vagina. As the gap was large, and the prolapse of the bladder rather inconveniently in the way, the middle suture was passed first, and six sutures were subsequently found necessary to close the wound. The line of the wound when brought together was right across the anterior wall of the vagina, and half way between the orifice of the urethra and the os uteri. After the sutures were fastened by twisting them, the vagina was wiped out quite dry; but no dressing was permitted to the wound. The patient was placed in bed on her side, and a catheter adjusted as described. Two grains of opium were at once administered, and a grain ordered to be repeated every four hours while the patient was awake.

Sept. 18th.—Has not slept well, and complains of a good deal of pain in the back, and some discomfort apparently from position, as well as from the previously excoriated condition of the nates. To take twenty drops of laudanum three times a day, instead of the solid opium. Catheter to be changed daily, and the excoriated parts to be bathed and powdered. No urine has escaped through the vagina, and the bed is quite dry; the urine passes readily through the tube into the bag.

21st.—The bed and linen continue to be kept quite dry. The urine passes entirely through the catheter. Bowels have not acted since the operation.

29th.—She has continued perfectly comfortable, and the bed has remained quite dry. There has been some slight discharge of thin purulent fluid from the vagina; but no urine escapes except through the tube. No dressing has been applied to the wound, nor have the parts been examined or disturbed in any way. The catheter has been retained until to-day without discomfort or irritation. It is to be removed during the day, and replaced at night. Bowels have not yet acted. An enema to be administered to-morrow morning.

30th.—The bowels acted after the enema. The laudanum to be discontinued.

Oct. 2nd.—The use of the catheter to be discontinued. The urine is passed at will, and the bladder is capable of holding it comfortably for three or four hours.

5th.—Got up and walked about. No escape of urine in the upright posture or in walking.

8th.—As she was quite relieved from the incontinence and anxious to leave the hospital, the sutures were in this case removed at the end of the third week. There was no evidence of the slightest irritation or ulceration at any one point of their insertion. The wound was perfectly cicatrized, and a fine, thin, soft line marked the union of the edges of the lately pared fistula. The patient was so delighted at the result of the operation that she was very averse to the removal of the sutures, and wished much to be permitted to quit the hospital without having them taken away—an instance of the very slight inconvenience caused by their presence.

She left the hospital on the following day, having perfect command over the bladder.

Mr. Pollock made the following clinical remarks:—These cases are satisfactory instances of relief from a most distressing evil occasionally following childbirth. The first instance marks the evil of a first labour being permitted to linger on without the aid of medical experience. The second, that though a woman may have been safely delivered of several children, she is not safe from accident if the labour be prolonged, and the head of the child be permitted to press on the vesico-vaginal septum for any considerable period. The third case is interesting, inasmuch as a mother of thirteen children should in her fourteenth confinement require the aid of instruments for her delivery, and that in all probability the fistula was caused by the use of the instruments, for the escape of urine ensued in this instance immediately after the child was passed.

There are several considerations to be borne in mind previous to undertaking an operation for vesico-vaginal fistula. The state of the patient's health should be good, so as to ensure the best prospect of union. The catamenial period should just have passed over a day or two previous to the time the operation is performed, so that no complication or inconvenience should arise from this secretion during the time that the catheter is in the bladder. The condition of the mucous membrane of the vagina should be healthy. Ulcerations or phosphatic deposits on its surface—a common occurrence in the early conditions of vesico-vaginal fistula—indicate that the operation should be delayed until a more healthy condition of parts is secured. The bowels should be freely acted on the night previous to the operation, and the rectum washed out with tepid water an hour or two before.

As regards the operation itself the following observations may be useful:—The most simple and efficient speculum to expose the fistula is Bozeman's; with it the rectal surface of the vagina can be most efficiently depressed, and ample space secured in the cavity of the vagina for the necessary manipulation of the instruments and introduction of sutures. The position of that for the operation of litbotomy is most convenient when chloroform is administered; but if the patient does not choose to be placed under its influence, she had better be made to rest on the elbows and knees; the fistula is most readily reached in this posture. In paring the edges of the fistula, it is most essential that the mucous membrane of the vagina should alone be removed to the extreme margin of the opening, and that the walls of the bladder be left untouched by the knife; so that, although the opening in the vaginal wall is enlarged when the edges are pared, the opening in the vesical wall is no larger than previous to the operation. The sutures should be of metal, passed on needles perforated through the shaft, so that the needle, with the suture lying partly hid in it, is first passed, and the suture subsequently pushed on through it. The texture of the suture may be silver, or iron wire silvered, or iron wire alone. The second is preferable, being cheaper than silver, and not liable to rust like the last. When the sutures are secured by a double twist, the ends should be cut off quite close to this point. The vagina should be wiped out quite dry, so that all clots and urine be removed from the cavity, and nothing left to decompose or cause irritation of the parts; and on no account should any dressing be applied to the surface of the wound. The vagina should be left free and empty.

After the operation is complete, a male gum catheter should be introduced; to the catheter a short india-rubber tube may be attached, with a small flat india-rubber bottle at the further end; or a long india-rubber tube may be attached, so that the free extremity may reach over the side of the bed into some utensil there placed to catch the escaping urine. If the long tube be used, it should be tied to the bedside, so that it shall not drag on the catheter or pull it out of the urethra. The patient should lie on the side; but occasionally this is so irksome that she must be turned, so as to lie on her back. The catheter should be daily removed, washed, and replaced; a new one to be substituted every third or fourth day. Opium should be given daily in sufficient doses to keep the bowels quiet for ten days; after that an enema may be given to empty the

rectum. After the action of the bowels the use of the catheter may be discontinued. The diet must be simple and rather spare until the bowels have been allowed to act. The wound should not be disturbed or examined for a fortnight; for it is well proved that the presence of metallic sutures produces no irritation if allowed to remain a month or more in the vagina after an operation for vesico-vaginal fistula. These three cases have been selected to illustrate with how much advantage and impunity metallic sutures may be permitted to remain in wounds of the vagina.

BRITISH LYING-IN HOSPITAL.

DISORDERS OF LACTATION; THREATENED "MILK ABSCESS."

(Under the care of DR. GRAILY HEWITT.)

DURING the last two months the following cases, illustrative of certain points as to the nature and treatment of disorders of the function of lactation, have occurred in the practice of Dr. Graily Hewitt at the above hospital:—

CASE 1.—E. R——, aged twenty-three, was delivered of her first child on Dec. 1st, 1863. Lactation proceeded normally for the first fortnight. On Dec. 18th the patient had an attack, described as being of hysterical nature, early in the morning, excited, as it appeared, by the fear that she might not be able to obtain a situation as wet-nurse. In the evening Dr. Graily Hewitt was sent for, and, on visiting her at ten P.M., he found the left breast much enlarged, and very painful. The enlargement affected the internal half of the gland only, which was very hard and exquisitely tender. The skin was slightly red, and a red line proceeded upwards and inwards from the nipple. There was no soreness of the nipple. The pulse was 120, and the patient was much excited, anxious, and slightly delirious. The quantity of milk in both breasts had been less for the preceding two days. Before admission to the hospital the poor woman had been living badly, and had been imperfectly nourished. Warm poultices were ordered to be applied to the breast, and ten drops of Battley's sedative solution to be given every four hours. The child to be applied to the affected breast for a short time occasionally. The patient is taking nutritious food; wine to be given in addition.

The following day the condition of the breasts and of the patient had very much improved, and on Dec. 24th she left the hospital well, both breasts secreting milk easily and normally.

CASE 2.—G. M. T——, aged twenty; also a primipara; delivered Dec. 7th, 1863. There was soreness of both nipples in this case, successfully treated by applications of borax dissolved in water. Lactation was at first extremely painful, but the child was regularly applied to the breasts, and no further unpleasant effects resulted.

CASE 3.—M——, aged thirty three; third child; has had one miscarriage; delivered Dec. 25th, 1863. She states that before marriage she had an abscess in the left breast, supposed to have been caused by "a chill." After her first labour she had an "abscess" in the left breast, which was "opened" several times. After the second labour she did not suckle at all with the left breast, but lactation proceeded normally in the other. After the present delivery, also, the child was not put to the left breast, but solely to the right. On the third day a hard, circumscribed, oval swelling, the size of a pigeon's egg, was observed above and to the inner side of the left breast. The skin covering the hardened portion was of a bright-red; it was extremely tender, and the seat of acute pain. No soreness of the nipple was observed. Warm poultices were ordered to be applied, and in two days the appearance of the breast had become in every respect normal. The child was not put to the affected breast at all. She left the hospital on Jan. 7th, 1864. This patient had been subject to epileptic fits. She had had two fits during the last pregnancy, and two days before leaving the hospital she experienced an attack of a similar nature.

CASE 4.—B——, aged twenty seven; sixth labour; delivered Dec. 27th, 1863. She states that after each of her previous labours she has had "abscess" in the left breast, and that it has been repeatedly lanced. On this occasion the child was, at first, put to both breasts; but the attempt to suckle with the left breast was attended with such exquisite pain that it was at once abandoned, and the right breast alone used. Two days after labour the left breast was the seat of great pain, and the nipple was tender, though not excoriated. Fomentations were applied. Four days after labour the left breast was very hard and still tender; the right breast performing its functions well. The patient is affected with a cough, perspires rather profusely, and is altogether debilitated. From the first she was ordered a liberal diet, including beer. She left the hospital quite well on Jan. 9th, 1864.

CASE 5.—N——, aged twenty-eight; second labour; delivered Jan. 2nd, 1864. This patient came into the hospital in a weakly state. The secretion of milk was extremely profuse after the first two days, so much so that three children had in succession been employed to relieve the distension of the glands. Four days after labour she complained of headache, the pain being situated at the top of the head; the pulse was 130. It was ordered that the breasts should be sponged freely with nearly cold water, the patient to refrain from giving the breast to more than one child, and a generous diet to be administered. She left the hospital, much improved in health, at the usual time.

The best treatment to be adopted in a case where the breast is threatened with "abscess" is a question of extreme practical interest. The objects of this treatment are—first, to prevent the affection running on to suppuration; and, secondly, to preserve the milk-giving power of the breast intact. In some cases, as where the affection arises from over-lactation, the first is the only object in view; but in the large majority of cases, where the breast is threatened with abscess during the first few weeks after delivery, it is a matter of importance to preserve the power of lactation, if possible, intact. More especially is this the case in the lower classes of the community, in whom the absence of an adequate supply of breast milk for the infant during the first three or four months of life is a matter of vital moment. How, then, to prevent abscess, and at the same time to preserve the function of the breast unimpaired—this is the twofold object generally before us.

The first stage of milk-abscess is perhaps too frequently regarded as one of "inflammation." The facts of cases as they present themselves before us in every-day practice do not support this idea so fully as has been usually supposed. The condition which—very frequently, at all events—is first observed is one of retention of milk in a certain portion of the gland, this retention being due to a variety of causes, the chief and most important of which is soreness of the nipple, and neglect on the part of the mother to have the secretion of the breasts sufficiently removed by the infant. The act of sucking is, under such circumstances, extremely painful, and is for this reason avoided; the retention thus, to a greater or less degree, continues. To entirely refrain from putting the child to the affected breast under these conditions is undoubtedly the best practice if we look solely to the prevention of mischief in the gland, but this involves generally loss of that breast for lactation purposes. By periodically and gently removing the secretion from a breast threatened with abscess, we may hope—at least such is the opinion entertained by Dr. Graily Hewitt—to effect both of the desired objects. Other measures, such as the application of fomentations, very gentle frictions with oil, and maintenance of the body in a state of rest, are requisite as adjuvants; but the primary object is held to be the removal of the milk-retention. It is hardly necessary to observe that such treatment is not applicable when the gland has been disused for some days, when the affection has advanced beyond the first stage, and when, in addition to milk-retention, inflammatory mischief has probably set up, resulting in the formation of large purulent collections. Still less is it applicable in cases of threatened abscess from undue and prolonged lactation. In such cases complete quiescence of the gland appears necessary to the cure, and suckling is generally inadmissible. It does not appear, in reference to the latter class of cases, that the application of the child to the other, viz. the sound breast, is productive of real inconvenience. That it slightly increases the turgescence of the affected gland is certain; but, as some of the above-mentioned cases show, when left entirely alone, the swelling will in a few days quite subside, the function of lactation proceeding normally in the other. And hence, in cases where we deem it expedient to give up all idea of continuing lactation with one breast, it will be generally found possible (if desirable) to continue the use of the other.

Should hardness, fulness, extreme sensibility and tenderness, and even redness of skin, be present, they do not, by themselves, and when they have been noticed only for a day, indicate that "resolution" (as it is termed) cannot occur. The first of the cases above related is illustrative of this. The quickness and completeness with which the tumour often disappears under such treatment as that now indicated is in itself an argument in favour of what has been here stated as to the existence of milk-retention, simply and alone, in the first stage of the so-called milk abscess.

Other points illustrated by the foregoing cases may be briefly alluded to. In the prevention and cure of sore nipples, Dr. Graily Hewitt attaches the greatest importance to ablution of the breast and nipple with tepid water after suckling. When the nipple is actually sore, frequent cleansing and application of solution of borax is generally found to answer. In Case 5 an extremely profuse secretion of milk gave inconvenience. If this be encouraged by too frequent applications of the child to the breast, the evil is perpetuated, and the patient's health suffers. Cold sponging of the breasts Dr. Graily Hewitt prefers to belladonna inunction as a means of checking the excessive secretion.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, JAN. 26TH, 1864.

MR. FERGUSSON, VICE-PRESIDENT, IN THE CHAIR.

CLINICAL OBSERVATIONS ILLUSTRATING THE EFFECTS OF IMPLICATION OF THE PNEUMOGASTRIC NERVE IN ANEURISMAL TUMOURS AND MORBID GROWTHS.

BY S. O. HABERSHON, M.D.

AFTER referring to the complex distribution of the pneumogastric nerve, and to the important symptoms of disease produced by the implication of its branches, the author proceeded to describe several cases of thoracic aneurism in which the branches of the recurrent laryngeal nerve, or the trunk of the pneumogastric, were involved.

The first case was that of a man, aged thirty-nine, who had been engaged in laborious work at Chatham and Woolwich dockyards. Two months before death he began to suffer from hoarseness, and the laryngeal symptoms were more marked than any other. There were paroxysms of urgent dyspnœa, and slight dysphagia. Five days before death hæmorrhage from rupture into the trachea commenced; and on the morning of his death the bleeding suddenly became profuse, and was quickly fatal. Dilatation of the aorta, double aneurism of the arteria innominata, and perforation into the trachea, were found. There was pressure upon the commencement of the recurrent nerve, and commencing degeneration of the muscular fibre of the laryngeal muscles on the same side. As to the physical signs, dulness and double bruit were produced immediately over the first bone of the sternum, but there was no bruit over the aortic valves. No pain had been complained of. The value of the laryngoscope had been shown in demonstrating that no disease of the larynx existed, slight œdema of the mucous membrane only being present.

The second case was that of a sailor, aged thirty-five, who had apoplexy, with aphonia and symptoms resembling phthisis; aneurism was, however, suspected. The recurrent and the pneumogastric nerves were both compressed; the muscles of the larynx were on one side pale and wasted, and the lung on the same side was in a state of asthenic pneumonia. The thoracic duct had also apparently been compressed.

In the third instance recorded, the symptoms of cardiac disease obscured those of aneurism. There had been pericarditis and endocarditis, and fibroid degeneration of the muscular fibre of the left ventricle existed. The patient was a groom, aged forty-five, and two months before death symptoms of catarrh and bronchitis came on; the heart's action was irregular and tumultuous; the pulse very feeble, but without bruit. Afterwards a triple sound was produced below the nipple, and with renewed bronchitis there were signs of pleuro-pneumonia of the lower lobe of the right lung. No pain and no dysphagia were complained of, but paroxysms of urgent dyspnœa, with extreme faintness; in one of these attacks he died. In addition to the degeneration of the heart, an aneurism was found at the commencement of the transverse arch; and the pneumogastric, after giving off its recurrent branch, passed directly over the sac, and the compression of this nerve had determined the pneumonic consolidation of the lower lobe of the right lung.

In the fourth case, the recurrent laryngeal nerve was compressed, and had produced paroxysms of urgent dyspnœa, but the dyspnœa was in great measure due to direct pressure upon the trachea. There had been feebleness of the voice, with dysphagia. Pain was of an agonizing character, but also paroxysmal, and it was apparently due to direct pressure on the nerves. The aneurism of the aorta was situated immediately beneath the subclavian, and had ultimately perforated the trachea; but rapid effusion of blood had been prevented by layers of fibrin, and it was probable that the first oozing of blood took place nine months before death. No bruit had been produced, but a ringing second sound; the heart was healthy.

The author stated that pressure on the pneumogastric nerve and its branches by aneurismal tumours in the chest led, first, to paroxysmal and spasmodic contraction of the muscles of the larynx; secondly, to diminished muscular power, and to paralysis and wasting of the laryngeal muscles; and thirdly, to pulmonary congestion and consolidation;—but that gastric symptoms, such as were found in peripheral pulmonary irritation of incipient phthisis, were not observed in thoracic aneurism. The effect of changed nervous supply of the œsophagus was briefly referred to; spasmodic contraction, and possibly also ulceration, taking place without direct pressure; the author stating that spasmodic contraction from this cause aggravated the effects of the direct pressure of tumours generally. It was likewise mentioned that occasionally no dysphagia existed, because the whole of the œsophagus opposed to the tumour was pushed aside *en masse*.

In conclusion, the author detailed an instance of disease affecting the supra-renal capsule, with bronzed skin; and exhibited a drawing from his dissection of a branch of the pneumogastric to the capsule. The irritability of the stomach often present in these cases was referred to this connexion. A dissection showing the larger branches of the semi-lunar ganglia, and the manner in which some of these branches were involved in the diseased capsules, was also exhibited.

HÆMATURIA OF THE CAPE OF GOOD HOPE.

BY JOHN HARLEY, M.D., F.L.S.,
ASSISTANT-PHYSICIAN TO KING'S COLLEGE AND THE LONDON FEVER HOSPITALS.

In the beginning of October last, a gentleman, resident in the Cape, consulted the author about a slight hæmaturia which he had had for some years. After micturition a little blood, never exceeding a teaspoonful, or some dark "veins," appeared with the last half ounce of urine. The urine itself was never bloody. Sometimes the "veins" would block up the urethra, and cause obstruction for a few minutes. He had an occasional twinge of smart pain in the loins. These were all the symptoms which ever appeared in connexion with the urinary apparatus. He said great numbers of people of both sexes were affected in precisely the same way in certain parts of the Cape. While awaiting a sample of his urine, Dr. Harley made inquiries amongst his Cape friends and acquaintances, and as the result corroborated his patient's statements, he was now satisfied of the existence of endemic hæmaturia in Uitenhage and Port Elizabeth, and it remained for him to ascertain the cause. In the various samples of urine sent to him by his patient, he invariably detected the eggs of an entozoon, and in one specimen he had the good fortune to discover the perfect embryo after its escape from the eggshell, under the form of a minute ciliated animalcula. From its anatomical characters and developmental changes he was led to refer the parasite to the Trematode class of worms, and to the family Distomum. Of the five species of this genus which inhabit man, it had no relation with three. Distomum heterophyes presented some points of resemblance—viz., in the size and conformation of the alimentary canal, if he (Dr. Harley) might be allowed to compare it with an organ he met with in one sample of his own, and which he supposed to be the intestinal canal of the adult parasite. But the animal which it seemed to most nearly resemble, in the outward form of the eggs as well as in the symptoms of the disease it produces, was the Distomum hæmatobium. This parasite, according to Bilharz and Griesinger, was very common in Egypt, and inhabited all parts of the urinary apparatus. But since the parts he had described differed in several respects from the corresponding parts of the hæmatobium, and since, from want of recorded information respecting the corresponding parts of D. heterophyes, he could not compare them with these, he was obliged to comprehend them under a new species, which he would call D. capense. Having finished his observations of this case, he was strongly persuaded that the hæmaturia of the Cape was due to the parasite, the early stage of whose development he had been able to observe; but still, as its presence in a single case might be nothing more than a coincidence, he felt that more extended observations were needed to prove that this was the constant cause of the local disease in question. With singular good fortune he had the pleasure of an introduction to Dr. Dunstroville, surgeon to the Port Elizabeth Infirmary, and who, having practised for twenty-seven years in the Cape of Good Hope—which was one of the two places in which he (Dr. Harley) found

the hæmaturia to be endemic,—was quite familiar with the disease, the cause of which, however, from want of leisure and means of observation, had never been ascertained. Dr. Dunstroville's two sons, in common with most other young men, suffered from the disease, but considered themselves to be now free from it. At the author's request, Dr. Dunstroville kindly supplied him with samples of their urine, and he (Dr. Harley) was at once enabled to demonstrate to Dr. Dunstroville the existence of the characteristic eggs of the parasite in question in the secretion from both. Having thus demonstrated the existence of the same parasite in three individuals suffering or having suffered from the hæmaturia endemic in some parts of the Cape, Dr. Harley concluded that the animal was the constant cause of the disease.

Dr. SYMES THOMPSON observed that the disease described by Dr. Harley as endemic at the Cape must be either rare in its occurrence or very limited in its distribution. He had received communications from three medical practitioners who had practised for several years in South Africa, and had not met with idiopathic hæmaturia either at Port Elizabeth or in the neighbourhood of Uitenhage. Dr. Johnston (Surgeon to the 85th L. I.) had seen many cases of hæmaturia in Natal, occurring in children between the ages of six and fifteen, more commonly in boys than girls, which he had regarded as dependent on congestion of the genito-urinary mucous membrane, arising from ascarides, tape-worm, or depraved secretions. He had found these cases very amenable to treatment directed to the removal of the conditions referred to, with the subsequent administration of turpentine, matico, or the sesquichloride of iron. Dr. Thompson added to this testimony that of a non-medical observer, the Bishop of Natal, whose sympathies are, perhaps, as much scientific as clerical, who had not, in his intercourse with medical practitioners in the colony, heard the disease mentioned as endemic in any part of his diocese. With regard to the question, whether the fluke described was the same as that occurring in Egypt, though zoologically almost identical, the Distoma capense (so called by Dr. Harley) seemed far less hurtful in its effects on the human constitution than the Distoma hæmatobium. The first-named entozoon was, perhaps, a variety of the same species. The speaker suggested that the principal medical officer of the Cape be requested to investigate the whole subject, and draw up a report, to be presented to the Royal Medical and Chirurgical Society at a future meeting.

Dr. COBBOLD remarked that no person who had previously familiarized himself with the appearances presented by the eggs of the various distomes could doubt for a moment that Dr. John Harley's illustrations represented the ova of the so-called Distoma hæmatobium. In short, the symptoms, pathological products, eggs, and embryos described by Dr. Harley, all tended to show that this hæmaturia of the Cape was identical with the well-known Egyptian malady. Dr. Harley's discovery was, however, a most important one in relation to the geographical distribution and prevalence of entozootic disease; for the author had now demonstrated in a most satisfactory and able manner, that the helminthiasis in question was not confined to Egypt, as had hitherto been supposed, but was more or less prevalent in Southern Africa and in the Mauritius. Speaking zoologically, this parasite was not a true distome, as it represented the type of a distinct genus, to which Diesing, of Vienna, gave the name of Gynæcophorus; Weinland, of Frankfort, had called Schistosoma; Moquin-Tandon had denominated Thecosoma; and himself had previously entitled Bilharzia, after the name of the original discoverer, Dr. Bilharz, of Cairo. He (Dr. Cobbold) had discovered this so-called Distoma hæmatobium in the portal blood of an African monkey (Cercopithecus fuliginosus) six months before Diesing had communicated his paper to the Vienna Academy, and, therefore, he hoped Dr. Harley (in concert with Weinland and others) would retain the generic name Bilharzia, which had the priority. At all events, this was not a new species of fluke, and, therefore, the name Distoma capense could not stand. But Dr. Harley's discovery was none the less important on that account. It was quite clear to him (Dr. Cobbold) that our fellow-men at the Cape, in the Mauritius, on the banks of the Nile—and also, if you please, our friends, the monkeys—obtained this parasite by swallowing the "intermediate bearers" of the Bilharzia. These "bearers" or "hosts" were small molluska or aquatic animals, inhabiting the African rivers. They contained the higher larval states of this parasite, the larvæ being introduced into the human body by drinking the African waters unfiltered.

Dr. DUNSTROVILLE said that he had given Dr. Harley all the information he possessed on the subject. In reference to what Dr. Symes Thompson had said, he stated that the disease never attacked adults. There was no doubt that the water had to do with the disease, but how, it was difficult to explain. He (Dr. Dunstroville) intended, by the help of his friends, fully to investigate the disease. He remarked that stone was uncommon, and he had only seen two cases.

Dr. LEARED said, in reference to the observations of Dr. Cobbold on the possibility of preventing the occurrence of parasites in the human body, that his proposal for the prevention of the fatal cystic disease of Iceland, by simultaneously treating all the dogs in the island for worms, had been very favourably received. The paper had been translated into Icelandic, and published in an Icelandic newspaper. Dr. Leared had also communicated with the late Baron Eschricht, of Copenhagen; the result was, that Dr. Krabbe had been sent to Iceland last summer for the purpose of ascertaining whether the sheep-dogs of the country are really infested with the Tænia echinococcus, the mature form of the cystic worm which infests the bodies of men. With this view one hundred dogs had been killed, and their intestines examined. The worm was found in about one-fourth of the number. What further steps the Danish Government intended to take Dr. Leared was unable to say, but he still felt confidence in the plan he had proposed.

Dr. HARLEY said, in reply to several points alluded to by those who had taken part in the discussion, that since there could be no doubt the parasite in question belonged to the genus Distomum or Gynæcophorus, the determination of the exact species was a matter of secondary importance. He had referred it to a new species, because, after careful comparison with Griesinger's figures and description, and Leuckart's review of them in his recently published work, he could hardly refer the ciliated embryo he had described to Gynæcophorus hæmatobium. On the other hand, the resemblances were so close and so many that it was probable they were identical; but from a bare comparison with the figures, he could not justly infer that they were actually so. He called attention to the fact that, although the symptoms of the hæmaturia disappeared after a time, the parasite still remained in the system as actively generating its kind as ever. Stone, it had been observed, was not at all of common occurrence in the locality in which the hæmaturia prevailed, but he would particularly draw attention to the fact that gravel was very prevalent. He had found that a highly saline condition of the urine accompanied the discharge of ova; and that the fine crystalline deposits very soon incrusted the ova. He had been particularly careful to satisfy himself that ova formed the nuclei of several renal calculi that had been submitted to him for examination by one of the patients suffering from the disease.

ROYAL COLLEGE OF PHYSICIANS.

ABSTRACTS OF

DR. GARROD'S LECTURES ON THE BRITISH PHARMACOPŒIA.

LECTURE I.

THE lecturer commenced by some general observations on alteration of weights, nomenclature, and other matters, which have been already more fully described and discussed in the articles previously published on this subject in this Journal. He proceeded to describe the therapeutical properties of some of the new remedies and other modifications effected in the old preparations, as follows:—

The first preparations to which he would draw attention were the Acids of the British Pharmacopœia, in which some changes had been made sufficiently important to call for a few remarks. And, first, with regard to acetic acid, or compounds containing it. British vinegar had been removed, and French vinegar substituted as usually the purer of the two, and Acetum distillatum omitted. The so-called acetic acid had been altered in strength; it now contained 28 per cent. of anhydrous acid ($C_4H_3O_3$) in lieu of 30·8 per cent.; it is defined as being prepared from wood by destructive distillation. The dilute acetic acid is made by mixing the stronger acid with seven times its volume of water, and is slightly weaker than the preparation of the London Pharmacopœia. Another form of acetic acid had been introduced, termed Acidum aceticum glaciale, or glacial acetic acid. It is so named from remaining in a crystallized

state at moderately cool temperatures; it is monohydrated acetic acid, or simply an acetate of water, and contains in its composition only one equivalent of water, which exists in the form of a base; the composition will, therefore, be represented by the formula $HO,C_4H_3O_3$.

The value of glacial acetic acid is partly chemical, partly therapeutic. In the former capacity it may be employed as a solvent; but in the Pharmacopœia it is, with the exception of being a component of the creosote mixture, only introduced as an external agent. It is a very powerful caustic; when applied to the skin it produces intense redness and pain, followed by speedy vesication. It is also used as an escharotic to warts and corns. It dissolves cantharadine pretty freely, and a solution, so prepared, had been employed for rapid blistering. The sore produced by this acid is very severe, as the action often extends to a considerable depth; it should, therefore, be used with much caution. He had occasionally employed it with advantage in cases where the absorption of cantharadine would have been prejudicial, as in some affections of the kidneys.

A second acid, called Acidum sulphurosum, has been placed in the British Pharmacopœia for the purpose of being employed as an external agent. It is a saturated, watery solution of sulphurous acid gas, and possesses its strong, suffocating odour. There is also, in the Appendix, a salt termed the hyposulphite of soda, which, as well as the sulphite of the base, may be used with the same intention as the sulphurous acid itself. The composition of these may thus be represented:—

Sulphurous acid,	SO_2.
Sulphite of soda	NaO,SO_2+7HO.
Hyposulphite of soda,	NaO,S_2O_2+5HO.

When sulphurous acid itself, in the form of its watery solution, is applied, the full action of the acid at once ensues. When, on the contrary, the sulphite of soda, first dissolved in water, and acidified with acetic acid, is employed, the sulphurous acid is slowly evolved; and when the hyposulphite is made use of, sulphur itself is liberated, in conjunction with the sulphurous acid.

Sulphurous acid is endowed with certain peculiar chemical properties, to which, doubtless, any therapeutic powers which it possesses are due. It is a strong deoxidizing body, which has considerable bleaching powers; it is also a powerful disinfectant and an antiseptic agent; and, lastly, it is strongly destructive to vegetable life.

Sulphurous acid is only employed as an external agent, and it is chiefly made use of in the treatment of skin affections connected with the growth of vegetable parasites, or in cryptogamous skin diseases; and in such cases it is a valuable remedy. A good mode of application is in the form of a lotion, in which the acid is previously mixed with an equal volume of glycerine. There are inconveniences in the employment of the sulphurous acid arising from its liability to decomposition, and also from the readiness with which the gas escapes from the applied lotion; and the author had usually chosen the sulphite or hyposulphite of soda, in lieu of the acid itself. Either of these salts may be dissolved in water, and the solution acidulated strongly with acetic acid; in the proportion, for example, of one ounce of salt, one fluid ounce of acetic acid, and about seven ounces of water. When the diseased surface is either sponged with this lotion or covered with a piece of lint moistened with the same, sulphurous acid is slowly evolved, and acts slowly but continuously upon the part. The simultaneous separation of sulphur in the case of the hyposulphite is of no disadvantage; on the contrary, in many cases, of benefit. It had been suggested that the acetic acid in such lotions is the remedial agent, rather than the sulphurous acid; and, to ascertain the correctness or incorrectness of such an opinion, Dr. Garrod had repeatedly put the point to a test. For example, he had selected a patient with pityriasis versicolor, treated the eruption on one side of the body with the lotion before alluded to, and the other with a dilute acetic acid of exactly the same strength; so that, in fact, every circumstance remained the same, with the exception of the sulphite or hyposulphite of soda. In all his trials, the results of which were carefully noted in the hospital books, the advantage had always been greatly in favour of the salts, although there is no doubt that the acetic acid is likewise a remedial agent in cases of this kind. As an internal remedy, the hyposulphite of soda or the sulphite has appeared to be of service in some cases of chronic vomiting, accompanied by the presence of the sarcinæ ventriculi, probably from the evolution of the sulphurous acid. He felt assured that sulphurous acid, and more especially the salts yielding the gas slowly, deserved a more extended trial as remedial agents.

Among the strong acids, the only alteration he need allude to was the alteration in the strength of the nitric. In the London Pharmacopœia its specific gravity is stated to be 1·42; in the British Pharmacopœia, 1·50. Looked upon in a medical point of view, this is of little or no importance; its difference of causticity would not be very appreciable.

In the dilute acids considerable alterations are discoverable. Dilute hydrochloric acid has been slightly increased in strength; dilute phosphoric acid more so; the amount of phosphorus contained in the pint being now 413 grains, in lieu of 360 grains. Dilute sulphuric acid is not materially altered; but dilute nitric acid is raised in strength. It was not, perhaps, necessary to pay much heed to these alterations in prescribing, seeing that a wide range is usually allowed from their minimum to their maximum doses; from 5 to 10 or 15 minims will still be the amount in which these dilute acids can be conveniently administered. A compound dilute acid is now made officinal, namely, dilute nitro-hydrochloric acid; the ratio of the acids is two parts by volume of hydrochloric acid to one of nitric acid, and the dilution ordered is such that the saturating power for alkaline solutions is somewhat less than that of the dilute nitric or hydrochloric acids; the dose, therefore, may be about the same.

With regard to arsenious and dilute hydrocyanic acids—remedies whose influence on the system has no relation to their acid properties—to these he would have occasion to allude in a future lecture.

On referring to the list of the Materia Medica, a vegetable would be found contained in it, which would, perhaps, be looked for with some interest, as it is one in favour of which there is much prejudice with the public, and even with some of the profession. He alluded to Arnica montana, or leopard's-bane, belonging to the natural order Asteraceæ. The part of the plant which is now made officinal in Britain is the dried root, and from this a tincture is ordered to be prepared, with one ounce of the root to the pint of rectified spirit. As an internal remedy it is rarely or never employed in this country, except by practitioners holding peculiar opinions, and then in infinitesimal doses. It appears to act as a powerful irritant, exciting sneezing when applied to the nose, and producing emetic and purgative effects if given in large quantities: in milder doses it is stated to act as a stimulant to the nervous system, causing spasmodic twitchings, and it was once thought to contain a principle not unlike strychnine in its action; it has also been looked upon as an excitant to the circulation, and as producing either diaphoresis or an increased flow of urine. The lecturer confessed that his experience of this drug as an internal remedy was very slight. He had, however, given the tincture in some cases of chronic rheumatism, when he should otherwise have been inclined to administer serpentary; but the result of his observations was not very definite. It had been recommended in cases of paralysis, nervous headaches, and so on.

It is, however, in its influence as an external application that the chief interest of arnica lies. Many look upon arnica as a sovereign remedy in the treatment of contusions, sprains, lacerations, and, in fact, in almost every kind of external injury; and the amount of the tincture employed for such purposes in this country is very considerable. As far as its composition is concerned, the whole plant, or, at least, the root and flowers, the parts which have been made use of, are known to contain a little volatile oil, a bitter matter, and also an acrid resin. Cytisin has been asserted to be its active principle by some, and an alkaloid, arnicine, by Mr. Bastick.

When the tincture of arnica is employed as a liniment, or when it is diluted and applied as a lotion to injured parts, it is supposed to aid greatly the reparative powers. To determine this point, Dr. Garrod had made many observations which, he thought, would not be altogether without value.

If arnica proves useful when applied to contusions or bruises, the results of accidents, it should be equally effectual when these injuries are artificially produced; and in making his trials he devised the following method:—Patients were selected, from time to time, in whom it was desirable to make use of dry-cupping, by which, as was well known, ecchymoses are caused more or less severe according to the amount of exhaustion of the glasses and the length of the time they are applied. Under such circumstances bruises can be produced in situations well suited for the application of remedies, and can likewise have symmetrical parts of the body injured at the same time and to the same degree; and thus everything becomes well adapted for obtaining trustworthy results, as there can be no disturbing causes from the difference in the healing power of the various parts of the surface, or difference in the condition of the patient. In the first series of trials six patients were

chosen: on the chest of each two symmetrical bruises were made—one on each side of the sternum; on one side an arnica lotion was applied, containing one part of tincture of arnica to three parts of water; upon the other side, spirit and water of the same alcoholic strength. In one case the result appeared to be in favour of the arnica; in a second in favour of the spirit; and in the remaining four no perceptible difference could be detected. When these results were compared with those obtained from other cases in which no treatment had been used, it was found that they were very similar to each other. He should mention, that after the application of the cupping glasses, from twelve to twenty-four hours were allowed to elapse before the use of the arnica and spirit lotions, in order to permit of well-marked ecchymosis being formed. In all the cases the lotions were kept constantly upon the injured parts for two or three days.

In the second series of trials, six patients were again chosen: from three to four bruises were made on the chest of each; one was kept constantly wet with undiluted tincture of arnica, another with rectified spirit, and one or two left to themselves. In two of these cases the result was most decidedly in favour of the undiluted spirit; and in four the results were, as nearly as the eye could judge, equal. The bruises left to themselves ran through all the stages of coloration, and the ecchymoses extended far beyond the original circular mark produced by the cupping-glasses; whilst in those treated with the spirit or tincture all discoloration was checked, and the bruises faded rapidly.

In the third series of trials, four patients were selected: three or four bruises were made on their backs, and treated—some with spirit alone, some with tincture of arnica, but in all instances oil-silk was placed on the lint saturated with the lotions, in order to prevent evaporation. In three of these cases the results were decidedly in favour of the spirit, and in one in favour of the arnica.

In comparing the trials made with the oil-silk coverings with those in which evaporation was allowed, no very perceptible difference was observed; by the first methods much trouble is spared, as the lotions need not be applied so frequently.

For carrying out these observations, attended, as they were, with considerable labour and expenditure of time, the lecturer was indebted to Mr. H. L. Kempthorne, the present house-physician to King's College Hospital. He might remark that some two years since he had made a similar series of trials, and with the same general results.

What was to be deduced from these observations? Certainly thus much—namely, that the application of spirit to a bruise is of very decided advantage; and hence the use of the lily leaves and brandy—so popular an application; but, at the same time, it would appear, from chemical experience, that the addition of arnica to the spirit is unattended with appreciable good effects; at any rate, in bruises having the characters of those induced by cupping-glasses. Under these circumstances, surely the *onus probandi* rests with those who assert that, in sprains and more severe contusions, arnica is an efficacious external remedy.

Before concluding this subject, Dr. Garrod thought it right to state that the tincture made use of was prepared from the flowers of the arnica, and the Pharmacopœia tincture is one of the roots; but it was known for a certainty, that any active matter contained in the root is present in the flowers; and he believes it is this portion of the plant which has been most extensively made use of in the treatment of the cases to which he had alluded.

LECTURE II.

At the conclusion of his last lecture on Wednesday, the 27th ult., Dr. Garrod had commenced the discussion of the new articles introduced into the British Pharmacopœia. Before, however, proceeding further, he wished to make a few remarks on the newness of the nomenclature adopted in many instances in the British Pharmacopœia. No small surprise might be expressed at, and perhaps blame attached to the Committee for, the changes which they had made; but no changes had been made without careful examination and much deliberation on the part of the Committee. He would give some examples of these changes. In the London Pharmacopœia we have chlorineum, in the British it is chlorum; so the liquor chlorinii of the London Pharmacopœia is liquor chlori of the British Pharmacopœia; and so also the liquor calcis chloratæ. In like manner the iodinium is changed into iodum. It might be asked, why this change? The word iodinium is an English word with a Latin termination; and this was incorrect. It was thought by some of the Committee that the root of the word ought to be appealed to; and hence the change. The chloroformyl of the London Pharmacopœia is converted into chloroformum in the British Pharmacopœia; also the potassii sulphuretum has been changed into potassæ sulphurata; and the ferri potassio-tartras Lond., into ferri tartaratum. It might be objected by some, that this principle had not been fully carried out, and that amongst the mercurial preparations the Committee had altered names and given others which have no chemical significance; but the names adopted were those which were in common use amongst the profession, and such as would avoid confusion—e. g., in the hydrargyri chloridum of the London is the calomel as in the British Pharmacopœia; also the hydrargyri ammonio chloridum of the London and the hydrargyri præcipitum album of the Edinburgh, is changed into the hydrargyrum ammoniatum of the British; the hydrargyri iodidum Lond., is the hydrargyri iodidum rubrum; hydrargyri iodidum viride is the green iodide of mercury. Such were the names by which they were to be prescribed; but, on reference to the characters, we should see their true chemical composition expressed. The salts of bismuth had undergone some alteration. In the London it is called bismuthi nitras—trisnitras, and in the Edinburgh bismuthi subnitras; in the British Pharmacopœia it is known as bismuthum album, and defined as BiO_3, NO_5. Also in one of the alkaloids a change had been made: Dr. Garrod alluded to quinia for quina of the London Pharmacopœia. These were the principal alterations in the nomenclature. All nouns ending in *as* were made feminine in the British Pharmacopœia.

To return to the new remedies introduced into the Materia Medica. Aconitia had now been added to the Materia Medica. It was made officinal in the London Pharmacopœia of 1836, and removed afterwards; why, he did not know. It was used as an external application; but its action had been very uncertain—dependent on its impurity. It was sold at a very high price; hence the necessity of testing it, which might be done by burning with free access of air, when no residue would be left, or it dissolved entirely in pure ether. That imported from the Continent had been found to be almost inert. Taken internally, aconitia produced tingling and a peculiar sensation at the palate and pharynx, and warmth at the epigastrium. In larger doses the tingling might be felt in the extremities, followed by numbness, which might last for hours or even days. Some sixteen years ago he made a series of experiments upon dogs, and found that one-fiftieth of a grain of aconitia would destroy even a large dog; half an hour or more might elapse before death took place. He found that it affected the nervous system, and that the animals were unconscious of the existence of anything external to them; also an intermitting action of the heart was produced. The symptoms witnessed in the human subject in cases of poisoning were very similar. Aconitia had been given internally in rheumatism, gout, and in carcinomatous affections; and in neuralgic affections he knew of no remedy so efficacious in allaying pain. Also, externally applied, it was very valuable in chronic rheumatism and gouty pains. The changes made in the preparations of this remedy would, he thought, be found to be very acceptable. In the British Pharmacopœia one fluid ounce contains 54 grains of the dried root. The London tinctures contained 185 grains to the fluid ounce, which was too strong as an internal remedy, and too weak as an external one. The British Pharmacopœia also contains a very strong spirit solution, which is not called a tincture, but known under the name of linimentum aconiti, in which one fluid ounce contains one ounce of the dried root; a little camphor is added to give it more the character of a liniment. Also an extract is ordered to be prepared from the leaves of the aconitum napellus.

Dr. Garrod then attracted attention to the group of Aloes in the London Pharmacopœia, of which, as they were aware, there were three—viz., the Barbadoes, the hepatic, and the socotrine. In the British Pharmacopœia the hepatic is discarded, the other two having been found on analysis much superior. Whether there were any difference between the Barbadoes and the socotrine aloes he could not clinically say. There was a widespread opinion that the watery extract of aloes differed very materially in its action from the aloes themselves. Wishing to ascertain the correctness or otherwise of this opinion, he instituted a series of experiments. He separated the soluble portions from the insoluble, and made them into pills. The result was that he found the soluble or watery

extract more valuable as a purgative; but, contrary to the received opinion, found that the griping was much increased. The insoluble portion of the aloes he found to be of little value. He was glad also to add, that Dr. Farre had made similar experiments, and the result had been the same. In the pil. colocynth. co., the Barbadoes aloes is ordered.

Some of the Salts were next considered. Several changes and additions had been made in the preparations of ammonia; for instance, the sesquicarbonate of ammonia is now to be called the carbonate of ammonia. In the aromatic spirit of ammonia the cloves and cinnamon have been omitted, and it is made stronger in spirit. The fœtid spirit of ammonia has been omitted, it being seldom used, and so extremely nauseous. The liquor ammoniæ acetatis is made much stronger. According to the London formula it is liable to become mouldy. The British is five times as strong as the London. The acetate of ammonia is not introduced because it could only be crystallized with great difficulty. Also, the liquor ammoniæ citratis has not found a place in the British Pharmacopœia.

Another new compound added is the benzoate of ammonia. Its value is seen in the enumeration of its qualities. It is more soluble than benzoic acid, and its action is quicker. The benzoic acid of this compound is converted in the system into hippuric acid, and the urine becomes altered in character, rendering it more acid and somewhat irritating; but it does not diminish the amount of uric acid. It is useful as a diuretic; it affects the mucous membranes of the ureters and bladder, and is valuable in catarrhus vesicæ with alkaline urine, also in cases of phosphatic deposits, and chronic inflammations of the bladder. It is supposed to unite with glycocoll, which probably exists in the blood, and forms hippuric acid. Nearly all the vegetable acids are known to be broken up into Co_2 and HO, when taken internally; but this is not the case with $(C_{14}\ H_3\ O_3 + HO)$ benzoic acid. Again, ammonia (NH_4) is a base that differs from potash and soda, since it does not pass through the renal organs; hence it is that the citrate and nitrate exert no influence on the urine. Benzoate of ammonia produces no injurious effects, and may be continued for a long time; the dose is from ten to twenty grains.

Another salt added to the list is phosphate of ammonia—$3\ NH_4O,\ PO_5 + 5\ HO$. It is in the form of colourless, transparent prisms, which, upon exposure to the air, lose water and ammonia, and become opaque; soluble in water and insoluble in rectified spirit. In certain urinary affections, and in gouty habit, there is reason to believe that, by long-continued use, benefit may be derived.

Certain changes have been made in the antimonial preparations which Dr. Garrod thought would be looked upon as a decided advantage. In the London Pharmacopœia we have the tersulphuret of antimony, the oxysulphuret of antimony, potassio-tartrate of antimony, and the antimonial powder. By some this last preparation is considered to be a very valuable medicine; while others consider it as much inferior to the secret remedy—pulv. Jacobi ver. The pulv. antimonii co. of the London Pharmacopœia consists of earthy salts, phosphates, and carbonates of lime, together with SbO_3, teroxide of antimony, and antimonic acid, SbO_5; and the value would appear to depend on the solubility of the teroxide of antimony. It was contended that the pulv. Jacobi ver. was more soluble; but from the experiments instituted it would appear that one preparation is as good as another. The black sulphuret is to be found in the Appendix; the tersulphuret is placed in the list of Materia Medica. The oxide of antimony (SbO_4) is insoluble in water, but readily dissolved by hydrochloric acid. From this was procured a preparation—the pulvis antimonialis—in lieu of the pulv. antimonii compositus, Lond. It is superior to the London, if the teroxide is the valuable ingredient in the London preparation, and also superior to James's powder. All the good that is to be got may possibly be obtained from the tartrate of antimony; but an oxide of antimony, which is not immediately soluble, may be of great use in some cases. In giving an insoluble medicine, the state of the stomach and the time always affect its action, and this, therefore, should invariably be taken into consideration. The chloride of antimony is used as an escharotic in cancer.

Some of the additions made from the vegetable kingdom were next commented upon. From the beeberu bark, obtained from Nectandra rodiei, or green heart tree, growing in Guiana, the sulphate of beberia has been introduced. The bark is heavy, hard, and fibrous; of a greyish-brown colour externally, reddish-brown within; very bitter taste. The sulphate is in the form of dark-brown, thin, translucent scales; yellow when in powder, with strong bitter taste; soluble in water and in alcohol. With respect to its action, it was said to be a tonic and antiperiodic, and a substitute for quinine. It has been much used in Scotland by Dr. Douglass. It has been found to exert but little power over the nervous system. The lecturer had great misgivings as to its antiperiodic power. He had tried it in three cases of tertian and quartan ague, but it failed. The disease afterwards yielded to quinine. It was said to be valuable in neuralgic affections, but he could neither confirm nor refute this statement. In all periodic diseases it would, he said, be well to note carefully the effect change of position, food, &c., have upon the patient.

There is a plant employed in medicine, the Conium maculatum, a fresh portion of which is made officinal. The leaf was the officinal part of the plant in the London Pharmacopœia. Hemlock owes its action to conia; all parts contain conia, and as it is easily decomposed, the Committee had introduced the fruit, because the alkaloid is less liable to undergo decomposition in this form, of which a tincture is directed to be made. The succus conii is also added. Within the last few years Dr. Garrod had made many experiments with this medicine, the results of which he hoped shortly to make public. Conium seems to act as a direct sedative on the spinal cord, and in very large doses causes paralysis. It is also useful to allay cough in bronchitis; also in allaying pain and improving the health in cancerous disease. In his clinical experience he had found the dose of twenty minims of the London tincture useless, and had given from a drachm to half an ounce three times a day. He had a patient taking one ounce of the tincture three times a day; it was made from the leaves, which were most carefully collected and dried. He afterwards gave to the same patient five fluid drachms of the tincture made from the fruit, according to the British Pharmacopœia, which produced the following symptoms: Some little alteration in vision, and numbness, which was difficult to ascertain, because the patient was suffering from paraplegia. Besides affections of the respiratory organs, also in spinal excitement, much advantage may be obtained by its employment in paraplegia from long exposure to wet and cold. A case successfully treated was a sailor, who for thirty hours was exposed to wet and cold. He had paraplegia; he could with difficulty crawl from one bed to another; suffered from incontinence of urine, and started in his sleep at night. He was treated for some time with the tincture of conium, and improved so much that he could walk about and retain his urine. Afterwards he had minute doses of strychnine given to him. This brought back the symptoms; he again had incontinence of urine, and did not walk so well. The dose of the tincture of conium of the British Pharmacopœia is from half a drachm and upwards.

Reviews and Notices of Books.

A Clinical Report on Cancer of the Female Sexual Organs. By THOMAS HAWKES TANNER, M.D., F.L.S. pp. 60. London: Renshaw.

IF practical medicine is ever to attain to more fixed and definite rules, it must surely result from careful clinical observation. In our estimation, no writings are so valuable as reports such as that now under notice; for, however much their authors may theorize, the *facts* which they relate may be read by all, and their value duly appreciated. Dr. Tanner has considered the subject of Cancer of the Female Sexual Organs in three sections:—1. Cancer of the Breast. 2. Of the Labia, Vagina, and Ovaries. 3. Of the Uterus. In his Introduction he considers the pathology of the disease; and, briefly, its treatment, in which we are glad to find that he condemns the use of caustics as not only useless, but often very injurious by hastening the fatal event.

Amongst the seventeen cases of cancer of the breast, one is recorded in which a complete cure resulted from excision, and the author, curiously enough, attributes this to an attack of erysipelas which came on after the operation; he further states, that the unusual success which M. Velpeau obtained by operation appears to have been due to the same cause. Of course the author does not advocate any such remedy (?), but merely remarks upon the coincidence; and he asks the question whether, with such experience before us, it is advisable to prevent union by the first intention: "in short," he adds, "it

may be disputed whether it is not a much greater advantage to have suppuration of the wound for many days after the operation rather than that simple union which the surgeon is generally so anxious to obtain."—p. 21.

Amongst the cases of cancer of the ovaries is a very interesting one of a girl under ten years of age. We believe this to be the youngest instance on record; and it is important to note that the girl was very much addicted to masturbation. It is to be feared that the great frequency of diseases of the female generative organs is in some way connected with this evil habit, as it undoubtedly is with excessive sexual indulgence. The subject is of vast importance; and, though undoubtedly presenting many and great difficulties, requires a thorough investigation. Dr. Tanner does not mention the subject except with reference to carcinoma of the uterus; and here he altogether disputes the proposition. Nevertheless, our experience on the general question, not with special reference to cancer, is in favour of the view expressed above.

Details of no less than 92 cases of cancer of the uterus are given. Of these, 80 were unmarried, 10 were widows, 1 was single but had borne a child, 1 only was really single, and in her case the deposit was secondary. Only 12 of the whole number had never been pregnant; while the rest had each averaged 6½ pregnancies, which, as the author remarks, is above the average, and "seems to show that childbearing predisposes in some measure to cancer of the uterus."

The pamphlet is a valuable contribution to the subject; the tables are carefully drawn up, and are very useful and easy of reference.

Introduction to Anthropology. By Dr. THEODOR WAITZ, Professor of Philosophy in the University of Marburg, &c. Edited, with numerous additions by the Author from the first volume of "Anthropologie der Naturvölker," by J. FREDERICK COLLINGWOOD, F.R.S.L., Hon. Secretary to the Anthropological Society of London. pp. 404. London: Longman and Co. 1863.

THIS new volume is the first of a series intended to be published by the Anthropological Society of London. It is also the first volume of Dr. Waitz's complete work, which has been thus early selected for presentation to the members as the continental treatise best representing such researches as tend to establish a *de facto* science of Man, and as more ably expounding the present state of anthropological science.

"The present work has rarely been noticed in this country, but in France it has been freely criticized. It has also been well received in Germany; and Dr. Waitz's foremost theoretical opponents have willingly admitted the zeal, immense research, and erudition he has shown in the collation of his materials. Neither is it written in a narrow party spirit, but the author is candid and impartial, and the whole tone of his work is characteristic of a truly philosophical mind."—p. xv.

We have no doubt that many of our readers will demur to this erection of a new science, to be called "Anthropology." They will ask, like ourselves—Of what is it constituted, but of the natural history of man and of the history of civilization? Others, like Dr. Waitz, will maintain that the physical part of the science of man, and the historical portion, are unconnected, save by certain obscure and complex relations, the analysis and development of which are but inadequately or often not at all worked out either by historian or biologist. To evolve these is the office of anthropology, which, according to Dr. Waitz, has assigned to it "the task of mediation between the physical and historical portions of our knowledge of man."

"It is," he says, "at the point of his transition from isolation into social life that anthropology must lay hold of man, and investigate the conditions and results of his further development."—p. 8.

What, then, is "ethnology?" some will cry out. Only a branch of anthropology, say the new-comers; that branch has for its object the investigation into the affinities of various peoples and tribes. If we are to take the treatise of Dr. Waitz as the best exposition of the science of anthropology, then we are forced to say that we are extremely sorry it has so few settled and substantial principles to offer us. The four hundred pages of the work teem with interesting and important facts. But what kind of facts are they? Simply those belonging to the natural history of man, with a few from the history of civilization! These appear to be, however, of so conflicting and variable a character—to be governed by general laws so little amenable to our present powers of scientific appreciation—as to lead Anthropology to confess she can settle nothing, or, at any rate, that she can only recommend us for the present to be more doubtful than positive—if, indeed, it can be allowed that she has even established herself. Nevertheless, Dr. Waitz's treatise is one which shows much research, unbiased feeling, and cautious judgment; and it contains the pith of a host of books like those of Prichard, Nott, Glidon, Latham, Lawrence, Agassiz, &c. There being an Anthropological Society, we do not know that it could do better than make Dr. Waitz its standard-bearer, than whom a more honest and cautious advocate does not exist. We confess, however, to some regret at witnessing the severance of two such bodies as the Ethnological and Anthropological Societies from each other. Is not *fraternization* a principle of the new science? If so, let it have full play in this instance, and then, perhaps, it may be said of anthropology, "Vires acquirit eundo."

TWO CASES OF SMALL-POX SUCCESSFULLY TREATED BY SARRACENIA PURPUREA.

To the Editor of THE LANCET.

SIR,—I beg to communicate some observations on the action of sarracenia purpurea in the treatment of small-pox. I have had an opportunity of giving it in one case only, another was treated by my brother in Aberdeen, who suggested its use to me; but the effects were so similar, speedy, and beneficial as to leave no doubt that they were due to the sarracenia.

I quote extracts from letters from my brother:—"I am giving a small-pox patient the sarracenia purpurea, in infusion; I commenced it yesterday. The eruption appeared four days ago, and is very abundant—a sort of semiconfluent variety, not *very* serious, but not by any means slight. In answer to my inquiry to-day, how he felt (I was anxious to know the *immediate* effects, if any, of the sarracenia), he said he was quite well in health. He is placed in very unfavourable circumstances—a miserable little place of an attic inhabited by three persons." In a note that I received a day or two later he says: "My small-pox case has quite recovered. The sarracenia seems to have some specific action, although most M.D.s say it is a hoax. I gave it to this man upon the fourth day of the eruption, up to which time the disease had progressed exactly in the ordinary manner, the vesicles containing clear lymph; but here they were arrested, they never went on to suppuration, and there was no odour perceptible. Prior to his getting the infusion he complained much of restlessness and sleeplessness at night, but after he commenced taking it he slept well. On my last visit, instead of finding symptoms of feverishness, I found him sitting by the fireside, telling me that he 'was quite well, but just not so strong.'"

To give the particulars of my own case would be to repeat a good deal of the substance of the above. The patient, aged twenty-five, was a man of a very full, plethoric habit. The symptoms were severe, and the eruption very abundant, quite of the confluent form on the face; the mouth and fauces were also covered. To extreme restlessness and sleeplessness at night was added pretty smart delirium. The patient commenced taking the infusion on the afternoon of the fifth or sixth day. Relief was almost instantaneous; he slept soundly during the succeeding night, and had no more delirium. When I inquired for him next day, he replied that "he had felt quite easy since I gave him that *stuff*," indicating the infusion. He continued rapidly to improve, and is now recovered.

I am, Sir, your obedient servant,

WM. HENDERSON GRANT, M.D.

Aberdeen, Jan. 1864.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 6, 1864.

A REMARKABLE letter was lately published from Dr. DENIS PHELAN, in reference to a "Poor-law Medical Widows' Fund." Dr. PHELAN urges upon our Irish professional brethren, holding dispensary and workhouse appointments, the necessity of making provision for their widows and orphans, and proposes that a fund should be established for the purpose, by the general contribution of those whose interests it would more immediately affect. Dr. PHELAN alludes to his efforts to secure to Irish dispensary and workhouse medical officers the benefit of the Superannuation Fund, and details the result of the Medical Charities Committee appointed to deliberate on the question in the year 1843. It is almost unnecessary to observe that the benefits proposed to be then conferred upon those holding public medical appointments were not realized, and that the attempt made to empower Poor-law authorities to grant superannuations to medical officers when unable to discharge their duties from illness, age, or length of service, was defeated by a majority of eleven to three votes. With the arguments urged, and the reasons advanced against including medical practitioners in the category of those entitled to Government or corporate consideration, most of our readers are doubtless familiar. It was asserted that a medical officer cannot be considered in the same light as a member of the Civil Service, as he is not in a department connected with the executive, and though much of his time is occupied in public duties, the advantages of private practice and of his official position are available as means whereby, independent of his public service, he may acquire influence and competence. Dr. PHELAN acknowledges the force of the objections urged, and adds, "If, however, the dispensary and workhouse doctors take up the subject in earnest, I think they will find that much can be said in favour of it, though they may not be able exactly to claim as Civil Service officers." We agree with Dr. PHELAN in the observation, and trust that the Irish medical profession will act upon the suggestions of one whose experience of their requirements and wants is greater than that of any other living man, since the best years of his useful public life have been passed in the important position of Poor-law Medical Commissioner, the duties of which he is generally admitted to have fulfilled with zeal and fidelity. The suggestions of this benevolent and good man contain much matter which commends itself to our serious attention. Is the position of the medical profession in England, as regards its professional charities, a satisfactory one? Are the resources at the disposal of those who administer our Medical Benevolent Fund, and relieve the Widows and Orphans of Medical Men maintained in a ratio proportionate to the numbers, wealth, and influence of those whose brethren may one day be obliged therefrom to seek relief? We submit this question to the consideration of the many whose genius has profited by opportunity to place them in our foremost ranks. The benevolent institutions most prominently before us are the Medical Benevolent Fund, whose operations are not limited in their range, but whose sphere of good is coequal, as far as possible, with professional distress; the Society for the Relief of Widows and Orphans of Medical Men in London and its Vicinity, and the Royal Medical Benevolent College. All of these institutions are admirable in their several ways; but each of them, though productive of great good, falls far short of the capacity of meeting the requirements of those for whose benefit and relief it has been established. Why is this? We fear it is attributable not so much to an absence of heart as to a want of consideration amongst the members of our profession, and it may be, to the unobtrusiveness of these charities on either the professional or the public eye. We do not desire to see them parading the necessities of those who once hoped that their aid might have been unnecessary. Neither do we wish to blazon it abroad that members of our profession leave families behind them too frequently but indifferently provided for; but as the fact is so, and as the appeals to our medical benevolent funds are far from being adequately responded to, it is right that we pause to inquire if each of us contributes in a manner proportionate to his means—if each one of us, in the full tide of his prosperity, remembers that there are many on whom age presses heavily—many widows and orphans helpless and forlorn—many disabled by sickness from practice, or permanently invalided through accident, towards whose assistance his hands might not be outstretched in vain. It ought to be felt a high privilege to relieve the suffering and to cheer the afflicted. We direct attention to these matters, and it is well that they be borne in mind, inasmuch as we fail to see or hear of donations being left to medical charities proportionately to their claims and objects. It may be that the benevolent public consider these several institutions as the special charities for the support and furtherance of which it is the more immediate privilege of the profession to provide. We do not object to this view, but we desire the profession to recognize that such is the fact, in order that they may be aroused to a fuller sense of their requirements, and a more just appreciation of the responsibilities which such a condition of public feeling entails. It is far from our intention to undervalue the great usefulness of the institutions named. The Medical Benevolent College more especially is a noble monument to its founder's philanthropy. It is a present triumph, and must be a future pride to all those who took a part in its formation. While offering a home to the aged and ailing, it also educates the young, and so combines the alpha and omega of professional generosity—we will not call it charity, since the term has fallen into distaste for the ostentatious indifference with which contributions are too frequently associated. It cannot, however, be denied that, particularly in the matter of education, the College is open to important reforms. Grave dissatisfaction exists on the part of many governors of this institution that it does not offer peculiar advantages for the education of sons of medical practitioners, advantages which were promised at the time of its foundation. As the pupil of this College really pays an adequate sum for the education he receives, it must be a subject of regret that he should be classed amongst the recipients of the "benefits" of a "benevolent" institution. The funds of the College are considerably enhanced by the payments of the independent pupils. The other learned professions are careful in avoiding such an anomaly. It is evident that the interests of the College suffer, and natural prejudices are aroused on the part of those who pay for its support, by the use of the term "benevolent." It is certainly not "benevolent" *quoad* the

students who pay. Why not call it the Royal Medical College? It is desirable that each of these institutions should assume a national professional importance, and that their funds should be ever in the recollection of the wealthy and good of our profession, to whom charity suggests itself as a duty. How can funds be more appropriately bestowed than in rendering assistance, whose advent is often the means of averting destruction? On what institutions can endowments be more suitably bestowed than on those which contribute to comfort the declining years of men whose youth and energies have been expended in alleviating suffering and disease. The object is praiseworthy, the recipients are deserving; why, then, in this wealthy country, is there not such a fund in existence as would satisfy the wants of all, and enable the medical thus to be the proudest, as it already is the noblest, of professions?—noble in its singular disregard of every consideration but that which will best enable its members to discharge duties the most responsible that it is permitted to man to exercise. Dr. PHELAN'S letter has suggested these observations. We believe they are not unnecessary, and trust they will not prove unproductive. The profession has recently had examples of how well and heartily its members respond to appeals made to them on behalf of those whose interests are invaded or whose professional character is unjustly placed in jeopardy. Let them look beyond purely personal considerations to objects not less deserving and interests not less dear; and, by recognising the undeniable claims of the different Medical Benevolent Institutions throughout the country, prove at least that prosperity and professional success, instead of leading the affluent to forgetfulness of those claims, render them more keenly alive to the truth that great positions involve on all who occupy them commensurate responsibilities, not the least of which is the kindly recollection of those whom Providence has less signally favoured than themselves.

THE vital statistics of the past quarter reflect in one sense its meteorological characteristics. A violent death-storm of scarlatina may be said to be the parallel of the heavy gales which marked the passage of the great November atmospheric wave; while an unusual excess of births is the representative of that rare warmth of the season which protracted a flush autumn to the last day of the year.

The mean temperature of the quarter (as we learn from the Registrar-General's latest Report) was no less than 3·2° above the average of 92 years; and although rain was scanty, fog prevalent, and the middle of the season stormy, the end of the year betokened rather a near-coming spring than a present winter. In the South-Midland Counties, polyanthuses, coloured primroses, violets, carnations, wallflowers, coltsfoot, and monthly roses were blossoming and in bloom when the year came to a close. In the North, the leaf-buds of some deciduous trees were much expanded on the 24th of December, and primroses and auriculas flowered in the same month; while in the Midland Counties, violets, primroses, daisies, and hepaticas were blooming to meet the new year.

The period from the 30th of October to the beginning of November was unusually stormy. On the 30th of October the heaviest pressure of the wind which had occurred within twenty years—namely, one of 29½ lbs. to the square foot—was registered at Greenwich. The fluctuations of the atmospheric pressure between October 27th and December 5th were remarkable. During the 3rd and 4th of December an extraordinary barometric fluctuation occurred over the whole country. On December the 3rd at Greenwich, at 7 h. 30 m. A.M., the barometer reading was 28·79 in., and remained at this reading 42 minutes, then turned to increase, and was 30·22 in. by noon on the 4th; at Castleton the increase was 1·1 in 13 hours; at Cockermouth, between December 30th at 9 A.M. and December 4th at 9 A.M., it was 1·34 in.

On the 6th of October the shock of an earthquake was felt widely in the midland and south-western districts.

The mortality of the quarter was ·058 above the average. The actual number of deaths in the three months amounted to 116,299. The mortality of the whole year 1863 was in excess of the average of the ten preceding years, a higher death-rate having occurred in every registration division of the kingdom except Monmouth and Wales. In the North-Western counties the average death-rate of 1863, in 1000 living, was 0·77 in excess of 1861, and 0·33 in excess of the ten years 1851–60.

The great mortality of 1863 was chiefly due to the destructive epidemic of scarlatina which prevailed throughout the year, and which in the past quarter was general all over the kingdom. The great fatality of this formidable, and as yet uncontrollable disorder, is painfully illustrated by the local registrars' returns of the past quarter. Of 61 deaths in East Maidstone (Kent), 26 were caused by scarlatina. One-sixth of the deaths at Newport (Isle of Wight) were caused by this disease. Scarlatina was the source of 23 out of 67 deaths at Basingstoke (Hants). A third of the mortality in Hertford, and a fourth in Oxford, were caused by the same malady. The ravages of the disease in Cornwall and the West-Midland counties were most formidable. Let the figures tell their own sad story:—

	Total deaths.	Scarlatina.
St Austell (Grampound)	56 ...	29
Truro (St. Agnes)	74 ...	33
Falmouth	148 ...	43
Penzance	207 ...	71
Bristol	116 ...	33
Clifton	210 ...	84
Burton-upon-Trent	150 ...	47
Tamworth	170 ...	74
Worcester	309 ...	131
Foleshill (Warwickshire)	99 ...	23
Coventry (Holy Trinity)	114 ...	31

At Bath, of 82 deaths, 25 were caused by scarlatina.

The Registrar-General justly remarks that the disease "still requires further study, as all its modes of propagation are not known, and little is done for effectually arresting its progress."

Small-pox still lingers in several parts of the kingdom, and particularly in the Northern counties and Yorkshire. Several local outbreaks of measles and diphtheria are also recorded.

The births registered in the last three months of 1863 were considerably above the average of the autumn quarter. The number of the births throughout the year was exceptional. In the Census report it is shown that the number of wedded childbearing women is increasing faster than the general population; and this, the Registrar-General suggests, partly accounts for the increase of the birth-rate.

The marriage returns of the past quarter are not made up; but the marriage-rate of the first nine months of 1863 was above the average. No more satisfactory indication could per-

haps be afforded of the temporary influence exercised by the commercial disaster in the North-Western counties on the prosperity of the nation, and the elasticity of our resources.

Of incidental matters deserving note in the Registrar-General's quarterly report, we would refer, first, to a return of the local registrar for Salisbury, which shows that in that city during the past half-year, out of a population of 9039 souls, 44 only have died. This slight mortality is traced directly to the improvements effected in the sanitary condition of the city since 1853. During 1854 and 1855 the mortality was at the rate of 29 and 27 in 1000; in 1856 it fell to 22; after some fluctuations it declined to 18 in 1860 and 1861; in 1862 an outbreak of measles and whooping-cough again raised the death-rate to 27; but last year the vigilance and energy of the Board of Health were again rewarded, and the mortality fell to 15 in 1000. "The sick city, healed in his county," says the Registrar-General, "is a cheering memorial near the ashes of Lord HERBERT, which lie above Salisbury on a tributary of the Avon. But, as experience proves, the health of a city, like the sacred fire on the altar, requires the constant vigilance of its guardians, otherwise its flames expire."

Doubt has been cast upon many of the popularly received accounts of persons who have lived to an extreme age. The registrar of Newton Abbott, Devonshire, records, without confirmatory evidence, the death of a pensioner in the Royal Navy at the age of 103 years. A more trustworthy instance of greatly advanced age is, however, recorded by the registrar of West Derby. He, in the course of the quarter, registered the death of an unmarried female no less than 112 years of age. "The informant," he states, "produced a duly stamped and authenticated copy from the baptismal register-book of the parish church of Prescot, which states that she was born at Eccleston, near Prescot, on the 24th May, 1751, and that she was baptized at Prescot church on the 5th June, 1751."

Medical Annotations.

"Ne quid nimis."

THE ROYAL SOCIETY.

ADVANTAGE has been not uncommonly taken of the reception of a paper by a learned society of high repute, and the compliment of a vote of thanks to the author, to represent to the public that his paper has been welcomed by the society as a contribution of more or less scientific value, and that by the vote of thanks the society has expressed its adhesion to whatever views may be entertained or announced by the author. Foreign societies are especially apt to be abused in this way, and this to so great an extent that the paragraphs in *Galignani*, which are habitually announcing startling communications made to the Académie des Sciences or the Académie de Médecine of Paris, and which are copied with singular avidity by many of the daily English journals, are, nine times out of ten, mere scientific *canards*, which are thus adroitly started before the world by ingenious *exploiteurs*, who so obtain a temporary notoriety, and give to their nonsense a fictitious and passing appearance of seriousness. The foreign societies are, as we have said, far more abused in this way than are our English learned societies; for as our political press does not notice their proceedings, less inducement is offered to speculators to advertise themselves in this guise before the general public. Nevertheless, the committee of our Royal Society have thought it advisable to prefix to their last volume of "Transactions" an advertisement, from which we make the following extract. After referring to the grounds of their choice of papers for publication in the "Transactions," which had been and will continue to be the importance and singularity of the subjects, or the advantageous manner of treating them, without pretending to answer for the certainty of the facts or the propriety of the reasonings contained in the several papers so published, which must still rest on the credit or judgment of their respective authors, they continue: "It is likewise necessary on this occasion to remark, that it is an established rule of the Society, to which they will always adhere, never to give their opinion, as a body, upon any subject, either of nature or art, that comes before them. And, therefore, the thanks which are frequently proposed from the chair to be given to the authors of such papers as are read at their accustomed meetings, or to the persons through whose hands they received them, are to be considered in no other light than as a matter of civility in return for the respect shown to the Society by those communications. The like also is to be said with regard to the several projects, inventions, and curiosities of various kinds which are often exhibited to the Society; the authors whereof, or those who exhibit them, frequently take the liberty to report, and even to certify in the public newspapers, that they have met with the highest applause and approbation. And, therefore, it is to be hoped that no regard will hereafter be paid to such reports and public notices, which, in some instances, have been too lightly credited to the dishonour of the Society."

INDIA IN THE NINETEENTH CENTURY: LONDON IN THE SEVENTEENTH.

DR. FARR, of the General Register Office, has recently taken stock of the progress of the nation in statistical and sanitary science. He says* we have constructed a new life-table in England, and have found out methods by which the principal series for determining the value of annuities on single or joint lives can be calculated and stereoglyphed by the beautiful machine invented by the Scheertzes. The volume will shortly be published.

He announces that the Registrar-General has undertaken, from the censuses and from the registered deaths of the ten years 1851–60, to calculate the mortality, at thirteen different ages, of the males and females living in the 631 districts into which England is divided. The causes of death will at the same time be shown; and it is expected that this simple and decisive demonstration of the causes of death, and of its attendant sickness, will lead to immense improvements in the public health. The people themselves will demand, and pay for, the means of healthy life: pure water, pure air, clean streets, and clean dwellings, containing none of the matter which is everywhere so intolerably offensive in houses, and is a source of fertility in fields.

The British Army, says Dr. W. FARR, consisted in 1861 of 227,005 officers and men; and 82,156 of them belonged to regiments in India. Since the acquisition of that part of the empire, the losses of our troops in men have been at the rate of 69 in 1000 annually; the mortality of men of the same age at home being 9 in 1000. This is the result of the great inquiry, instituted under Lord Herbert, into the health of our army in India, and which has been continued by a Commission ably presided over by Lord Stanley. Our first impression was that the excessive mortality was due to the tropical climate of India, and it is true that the inundated and undrained valleys of the Ganges are prolific sources of malaria in its intensest forms; but at some of the stations in the hottest regions the mortality of the soldiers did not exceed 20 in 1000, the mortality of the officers subject to malaria as well as the men was at the rate of 38 in 1000, and the mortality of civilians in the same climate was 20 in 1000. Again, the diseases were dysen-

* Journal of the London Statistical Society. Dec. 1863.

tery and liver disease, diarrhœa, cholera, and paroxysmal fevers: precisely the diseases which were as fatal in London during the seventeenth century as in India now. Bad water, spirits, the want of work of muscle and bone and brain, the want of land drainage and culture, the same dirt which annoys our senses in London and in Berlin (Dr. Farr was talking to the people of Berlin), and in all our towns, as well as other obvious causes, have destroyed the men's lives. We expect that the mortality in India will be reduced to the normal standard by placing the troops on high lands, and supplying them with the necessary means of healthy existence. Each man we lose is worth £250, and hence the necessity of hygienic measures, which is further apparent when we consider the efficiency in the field of armies of healthy troops. The Secretary of State for India, Sir Charles Wood, has directed the principal measures which the Commission recommended to be carried out; and amongst the recommendations is this—"That a system of registering deaths and the causes of deaths be established in the large cities of India, and be generally extended, so as to determine the effects of the local causes on the mortality of the native as well as of the European population; the result to be tabulated and published annually by the Commission." This is a measure of vast importance. The excellent good sense and convincing logic of the statement of Dr. Farr commend it to universal attention. When India of the twentieth century shall be made as healthy as is London of the nineteenth century, it will acknowledge him as one of the most modest but not one of the least of its benefactors.

MEDICAL EDUCATION AT HOME AND ABROAD.

THE opinions set forth by Professor Syme in his observations on Medical Education at the *conversazione* of the College of Surgeons of Edinburgh, have so far been adopted by the Faculty of Edinburgh as to lead already to the important changes set forth in the following recommendations of the Faculty, which have been sanctioned by the Senatus Academicus of the University of Edinburgh:—

"1. The Medical Faculty recommend that there should be from three to five class examinations each session, conducted by means of questions and written answers, without aid from books or notes.

"2. That with each medical professor who conducts written class examinations there shall be associated one or more assessors, to be selected by the Medical Faculty from the examiners in medicine or from the members of the Faculty, to whom the questions to be proposed shall be submitted for approval, and who, along with the professor, shall examine the answers and determine their value.

"3. That in the event of any student gaining seventy-five per cent. of the marks in any department, he shall be exempt from further examination on that subject when he appears for his degree examination.

"4. That in the event of a student gaining fifty per cent. of the marks in any department, he shall only be required to undergo an oral examination on that subject when he appears for his degree examination."

These examinations correspond in a great measure with the "examens de fin d'année" of the French system, recently described in the letter of our Paris correspondent (THE LANCET, Jan. 16th), only that they are intended to supersede ultimate examination for the degree, which is far from being the case in Paris. There is no possibility of applying such a method in London, where the number of schools and of independent professors is so great that it would be simply impracticable, even if it were desirable, to associate an "assessor of the Faculty" with each professor examining his class, so as to see fair play, and give authoritative value in the eyes of the official examining boards to the figures of merit awarded by professors in their classes. The plan of allowing class examinations by lecturers to supersede the official examinations for awarding degrees is not one which can become practical in London or throughout England; and if the Edinburgh authorities are pleased with it, and find reason to adopt it permanently, it will still only remain as a local and not a general change. The multiplicity of London and provincial schools would raise innumerable objections to such a plan, both in principle and practice.

Our French colleagues are not less active just now than ourselves in considering the means of improving their system of education. And Dr. Jaccoud, a young professor and physician of the hospitals, who has been sent by the Minister of Instruction to study the organization of the Faculties of Medicine in Germany, has just made his report. He sums up his conclusions in the following words:—"What is necessary in order to complete our organization and to secure for it that superiority which we observe amongst our neighbours? We must, after their example, construct anew the system of clinical teaching. We must, like them, create practical institutes of which the laboratories shall be freely open to all pupils, and not to those especially privileged either by fortune or by friends. The new organization of clinical instruction will substitute serious and really useful studies for that insufficient part of the curriculum which consists but too often in promenading the wards of an hospital and signing a schedule of attendance: it will afford the means of giving to pupils the practical instruction which they need and to which they have a right. At the same time the foundation of physiological and pathological institutes, in creating for all branches of medical science a practical means of instruction, will remove from our Faculty a deficiency which is observed now with painful surprise."

RUN OVER.

To safely traverse on foot the busy streets of London requires a quick ear and a sharp eye. The rush of the traffic and hurry of the crowd actually appal country folks, and make them giddy. There may be seen at every great crossing small crowds of them waiting, like Horace's countryman, till the stream shall diminish; or placing their confidence in the policeman; or, in sheer desperation, resigning themselves to the pilotage of the sweeper. The police returns prove that the danger is by no means imaginary, since the number of injuries caused by street accidents in London exceeds all the damage done to life and limb on all the railway lines in the kingdom.

The Londoner gets accustomed to the pother. It scarcely interrupts the current of his thoughts as he steadily threads his way through the up and down lines of vehicles which impede his crossing. But long impunity itself becomes a source of danger. Accustomed to safely take our walks abroad, we do not consider how much of risk ensues on the withdrawal of any of the simple safeguards on which our preservation often depends: if the hearing become dull, the sight dim, or the legs feeble; if we

> "Not once perceive we're growing old,
> Or think on death as near."

A sad street accident which occurred in London last week led to the untimely death of an estimable and highly respected gentleman, who had recently been obliged to resign a high appointment because of his increasing deafness. Whilst crossing the street he was knocked down by a horse and cart, and died from the injuries received. The coroner stated that he had recently held an inquest on a similar case, in which deafness had also led to the accident. It appeared that the driver called out, and endeavoured to check his horse to the best of his ability; so no blame could attach to him personally, as he did all in his power to prevent the accident. But the driver was "a lad," and this fact we think should not be overlooked. For it is no uncommon thing in London to see heavy drays and laden carts, drawn by large hard-mouthed horses, driven by mere boys, or weedy lads, who would inevitably be jerked off the box if they endeavoured to suddenly restrain their lumbering teams. For all purposes of guiding or driving they may possess the requisite tact and knowledge, but it is impossible that their puny limbs and undeveloped muscles can enable

them to forcibly pull up the horses so as to avoid an impending collision, or save the life of any unfortunate passenger in danger of being run over. It is therefore eminently improper, in our crowded streets, that such a duty should be confided to mere boys, even if they possess sufficient steadiness to resist an occasional "burst" through a clear street, fraught with danger to feeble pedestrians. It is true that boys are cheaper than men; but in such a case as this it is public safety, and not private advantage, which first demands consideration.

THE QUEEN'S VISIT TO THE ROYAL VICTORIA HOSPITAL, NETLEY.

HER MAJESTY, accompanied by his Royal Highness Prince Leopold, and attended by the Marchioness of Ely, Countess Blucher, the Hon. Mrs. Bruce, Sir Charles Phipps, Sir Thomas Biddulph, Colonel Ponsonby, and Dr. Holtzmann, paid a visit to the Military Hospital at Netley on Thursday, the 28th ult.

The Queen arrived, with her usual punctuality, at noon, in the royal yacht *Fairy*, and instantly disembarked. Her Majesty was received on the jetty by Colonel Wilbraham, C.B., Inspector-General Dr. Anderson, Majors Ravenhill and Rawlins, the Professors of the Army Medical School, and the medical staff of the Hospital. All present were delighted to notice that her Majesty appeared to be in excellent health, and, withal, less careworn than on the occasion of her former visit. A carriage was in waiting, and the Queen, entering it, drove at once to the chief entrance, where she alighted; and, passing through part of the southern wing of the building, at present unoccupied, went straight to the quarters in rear of the hospital occupied by the wives and children of the patients arriving from foreign stations, and inspected the school-room where the children of the Army Hospital Corps are instructed. It will perhaps be in the recollection of some of our readers that the last time the Queen was at Netley these quarters were unavoidably overcrowded, as the buildings for the accommodation of women and children were not then even commenced. There was therefore some significance in the selection of this quarter for another inspection. Returning into the main building, the chapel and the great kitchen of the north wing were visited. The royal party then ascended to the clinical wards of the medical division, where her Majesty visited every ward containing patients, stopping at the bedsides of the few serious cases, dropping words of sympathy and kindness, and addressing inquiries to Professor Maclean about the condition of the patients. Her Majesty, remembering the incidents of her former visit to this part of the building, did not fail to ask Inspector-General Anderson about the fate of some sick soldiers then in hospital, whose sufferings attracted her peculiar attention. The Queen then drove to the high ground in rear of the hospital, and looked at the quarters now building for the use of the married men of the Army Hospital Corps, with their families; and after a visit to the handsome rooms of the Army Medical Staff mess, her Majesty, having first expressed entire satisfaction with the condition of the hospital, its inmates, and the arrangements for the care and treatment of the sick and wounded soldiers, re-embarked and returned to Osborne.

THE BRITISH PHARMACOPŒIA: A HINT TO PRESCRIBERS.

THE British Pharmacopœia has been "Gazetted," and thus has now all the official authority which it can possess. This amounts, as we plainly foresaw, to very little. The acts of prescribing and dispensing are, indeed, at this moment in a state of no small confusion. The chemists are enjoined by the Preface to the Pharmacopœia to burn all the old preparations, and to supply henceforth only the new preparations. On the other hand, practitioners have hardly even begun to prescribe any of these new formulæ, nor are the chemists by any means in possession of all that is ordered. So that there is actual danger of, at least, a double confusion: the physician ordering according to the old terms, and the chemist dispensing according to the new; or the physician ordering new, and the chemist supplying the old preparations. Under the existing circumstances we would suggest to all practitioners writing prescriptions to distinguish their meaning by writing Pharm. Lond., or Pharm. Britt., according to their wish. It is by no means an unimportant or imaginary dilemma; and as the relative preparations are of different strength, it is very desirable, in the interest of patients, prescribers, and dispensers, that for the present, at least, this simple precaution be adopted.

IRELAND AND THE ARMY MEDICAL SERVICE.

A RECENT decision of the War Office affords the privilege of competition hitherto denied to the apothecaries of Ireland. The Medical Council having decided that Licentiates of the Company of Apothecaries in Ireland are entitled, when registered, to practise medicine in Great Britain and Ireland, the Secretary at War will now admit them to employment in the Army Medical Service, as will be seen by the following letter:—

"War Office, 23rd January, 1864.

"SIR,—I am directed by the Secretary of State for War to acquaint you that Earl de Grey has had under his careful consideration the various representations which have been made to him on behalf of the Licentiates of the Apothecaries' Hall of Ireland, to be allowed to present themselves as candidates at the competitive examinations for appointments in the Army Medical Service.

"I am now to acquaint you that Earl de Grey considers that the opinion of the General Medical Council that the registered Licentiates of the Company are entitled as apothecaries to practise medicine in Great Britain and Ireland, is sufficient to warrant their being accepted as candidates for the employment of the Army Medical Service, and the Director-General of the Army Medical Department has been so informed.

"I am to add that the next competitive examination will commence on the 8th proximo.

"I have the honour to be, Sir, your obedient servant,

"Charles H. Lest, M.D." EDWARD LUGARD.

Critical and Explanatory Comments

ON THE

NEW PHARMACOPŒIA,

INDICATING THE

EXTENT AND CHARACTER OF THE CHANGES MADE, AND THE RELATIVE VALUE OF THE NEW AND OLD PROCESSES & PREPARATIONS.

No. IV.

THE British Pharmacopœia contains so many preparations the use of which is extremely limited, while others of much greater repute have been omitted, that we can only imagine that they represent the crotchets of some members of the Committee. We have already mentioned digitalin, and shall have to refer to others, such as citrate of lithia. At the head of the iron preparations there is a process for preparing arseniate of iron, a compound which we will venture to say has never been employed by one practitioner in a thousand, and the remedial value of which is certainly not so thoroughly established that it can claim a place in the British Pharmacopœia. We have nothing to say against the process by which it is obtained, but rather wonder why it is mentioned at all. Though the scale preparations have been so long in use, this is the first time that the three principal ones have been included in a Pharmacopœia. The ammonio-citrate of iron and the potassio-tartrate of iron were, it is true, recognised by the former Pharmacopœias; but the most popular of all, the citrate of iron and quinine, makes

its appearance now for the first time. It was most desirable that a recognised formula should exist for this preparation. The labels attached to the bottles containing this substance stated that it contained twenty-five per cent. of citrate of quinine. As a matter of fact, it contained something between this amount and no quinine at all. The term citrate of quinine was soon made very elastic by assuming the existence of a number of acid citrates of quinine, and this convenient theory was carried sometimes so far that the compound consisted almost entirely of citric acid, with very little quinine. Occasionally very bitter samples were met with at low prices. In this case they were generally found to contain the so-called amorphous quinine, which is comparatively a very cheap substance. Lately cinchonine has been substituted to some extent. Under these circumstances, it was clearly the province of the Pharmacopœia to step in and define what this preparation ought to be, and give a good process for its preparation. We cannot, however, altogether congratulate the Pharmacopœia Committee on its handling of these scale preparations. The directions given are sometimes very loose, and betray a want of practical acquaintance with the subject. Of course one great object in making these scale preparations is to obtain them in nice scales; and here we look in vain for aid from our instructor. As soon as a perfect solution of the materials is obtained, we are told to evaporate it to dryness on glass or porcelain plates. Now, the success of this operation depends on two points—the strength of the solution, and the temperature. On the first of these points the Pharmacopœia gives no instructions whatever. On the second it is altogether wrong. If the Pharmacopœia is strictly followed, the solution when poured on the plates will be generally so thin that scarcely anything will be left on the plate at all; indeed the solution is as thin as water. In the case of citrate of iron and quinine, the temperature at which the scaling takes place is defined simply to be under 212°; in that of potassio-tartrate of iron, under 140°. For ammonio-citrate of iron no temperature whatever is given. Now, at these high temperatures little but powder would be obtained, and in the case of citrate of iron and quinine there would be difficulty in removing the product from the plates. The solution should in every case be evaporated to the consistence of a syrup, which is to be poured on the plates. These should be set up to drain slightly, and then reversed to spread the liquid equally. They must now be placed quite horizontally in a room, the temperature of which should be *gradually* raised to about 80° or 90°. In this way large scales will be obtained, which separate easily from the plate, and are free from any powder.

In the formula for ferri et ammoniæ citras, the quantity of citric acid is unnecessarily large. In the Materia Medica the composition of this preparation is doubtfully given as "Fe_2O_3, NH_4O, HO, $C_{12}H_5O_{11}+2HO$?" In order to obtain such a compound, four ounces of citric acid should be used to eight fluid ounces of the solution of persulphate of iron, whereas the Pharmacopœia orders five ounces. Even with three ounces a perfect solution may be obtained on the addition of the ammonia; so that in the process here given, an excess of citrate of ammonia is always present. Solution of ammonia is used to precipitate the iron in this instance, but for the two other scale preparations solution of soda is directed to be employed. No reason can be assigned for this except mere love of variety, as either precipitant would have answered well for all three. Again, we have ferri et ammoniæ citras and ferrum tartaratum. To be consistent, this last should have been called ferri et potassæ tartras.

In the preparation of ferri et quinæ citras, every medicinal purpose would be attained by the simple mixture of the citrate of peroxide of iron with the citrate of quinine. But such a compound would have been of a reddish-brown colour, and this is not the appearance that citrate of iron and quinine usually presents. The citrate of iron and quinine met with in commerce is in brilliant scales of a greenish golden-yellow colour, rather deliquescent, and more or less (but generally very easily) soluble in water. In order to imitate this colour, the Pharmacopœia employs a citrate both of the peroxide and protoxide of iron; but if this be the object in view, it meets with but indifferent success. We have repeated several times the exact directions of the Pharmacopœia, but in no instance have we been able to obtain the greenish golden-yellow scales which they declare, in the Materia Medica, to be characteristic of their preparation: the resulting product is, on the contrary, dark in colour, with a slight tinge of olive-green. The peculiar colour of citrate of iron and quinine is not obtained in this way. On examination, it is found that the whole of the iron which it contains is in the state of peroxide; and we do not think that the characteristic colour can be obtained by the Pharmacopœial directions. From a medicinal point of view, however, the colour is of no importance; and the process given in this case yields a product which scales well and easily, is not deliquescent, and contains the proper quantity of quinine. It has often been found difficult to introduce the full amount of quinine into the compound, in consequence of its tendency to crystallize out. The freshly precipitated quinine, when thrown down by an alkali from an acid solution of sulphate of quinine, almost invariably contains sulphuric acid; and the sulphate of quinine then crystallizes from the citrate in the process of evaporation. The Pharmacopœia has met this difficulty in a very effectual way. The sulphate of quinine is first converted into hydrochlorate by means of chloride of barium: to the liquid filtered off from the sulphate of baryta, ammonia in slight excess is added, and the precipitate is collected on a filter and washed. The Pharmacopœia says, very carelessly, "Wash it with distilled water, until chloride of barium dropped into the filtrate gives but a slight precipitate." As nothing is present which can possibly occasion a precipitate with chloride of barium, we presume that nitrate of silver is intended. The basic hydrochlorate of quinine is a comparatively soluble salt, so that it has not the same tendency to be carried down with the precipitated quina.

Ferri iodidum is very little employed in the solid form. It is chiefly prescribed either as syrup or pill; and as the Pharmacopœia gives directions for preparing both of these direct from iodine and iron wire, the solid iodide was hardly required. The blue phosphate of iron, which did not appear in any of the last editions of the three Pharmacopœias, has been revived again; and as it resembles somewhat the arseniate of iron mentioned above, a special test (with copper and hydrochloric acid) is given to distinguish one from the other.

Ferri sulphas granulata is supposed to oxidize less readily than the crystals. This preparation evidently emanates from Ireland, where it is rather a favourite. It is of somewhat uncertain composition, containing more or less water of crystallization. By the way, there seems to have been some difference of opinion about the gender of such words as sulphas, carbonas, &c. In Edinburgh and Dublin they have been considered neuter, but in London feminine. The London view is that adopted by the Pharmacopœia.

Another substance of enormous consumption for medicinal purposes is admitted into the Pharmacopœia—we mean glycerine; and the Pharmacopœia has very wisely not attempted to give a process for its manufacture. It is produced in commerce of various degrees of purity for different purposes, and is to be had perfectly pure at a very cheap rate. The specific gravity of the pure glycerine which is ordinarily met with, such as Price's glycerine and that of other makers, is about 1·250. Why, then, does the Pharmacopœia make a new thing, and speak of glycerine as having a specific gravity of 1·260? Is not the present standard sufficiently concentrated? Glycerine is never employed in the concentrated form, but always diluted with rose-water or some other menstruum. What, then, can possibly be the object of this excessive concentration? If the Pharmacopœia wishes to describe pure anhydrous glycerine, it does not go far enough, as the specific gravity should be in that case 1·270. It is simply giving needless trouble without any object. Although glycerine is so extensively used both externally and internally, the Pharmacopœia dismisses it with the bare mention of its specific gravity. We are rather surprised that no use has been made of it in some of the preparations.

Granati radix has taken the place of granati fructus. It is said to be useful against tapeworm.

There has been so much oscillation in chemical opinion about the atomic weight of mercury that the hydrargyri chloridum is the calomel of one Pharmacopœia and the corrosive sublimate of the next. To avoid any danger from this cause, the British Pharmacopœia abandons the scientific nomenclature altogether, and falls back upon the popular names; so that calomelas and hydrargyrum corrosivum sublimatum, hydrargyri iodidum rubrum, and hydrargyri iodidum viride are to be the distinguishing names for this edition. The green iodide of mercury is directed to be made by triturating mercury and iodine together; the product will be an olive-green powder, and this is

the proper way of making it. Under the same name a brilliant yellow powder is often found in the shops, which is made by precipitating the protonitrate of mercury with iodide of potassium. As protonitrate of mercury is only soluble in water containing nitric acid, a certain amount of red iodide is always formed, and it is the presence of this that gives the green iodide the yellow colour. It is therefore much more active than the green powder, and it might be dangerous to substitute it for the Pharmacopœial preparation. That it contains red iodide may be proved by boiling it with a little aniline, which forms magenta colour with persalts but not with protosalts of mercury.

In rejecting the scientific names of the mercurial preparations, the Pharmacopœia has rather erred on the other side. For example, hydrargyrum ammoniatum. This name is thoroughly wrong. It is not ammoniated mercury. On the contrary, it does not contain any ammonia at all, as only two atoms of hydrogen are present. If a popular name is required, there is hydrargyrum precipitatum album.

There are many additions to the infusions; but in some cases these additions represent decoctions that have been omitted—as, for instance, in the case of dulcamara. The time of infusion is generally shortened; for example, senega, which was ordered to be infused four hours, is now only infused one hour. This is a great advantage, particularly with infusions rarely used, as it was impossible to dispense prescriptions containing them when wanted in a hurry. These considerations lead us to a class of preparations designed to overcome the tedious process of making infusions, especially in small establishments and surgeries. In the larger druggists' shops all the infusions likely to be wanted are made early in the morning, and if not used during the day, are thrown away; but this cannot be done without great loss of time and material by pharmaceutists on a smaller scale. Concentrated infusions are, therefore, used to an enormous extent, and will continue to be used. The infusions made in this way are unquestionably inferior to those freshly made. Still, considering the absolute necessity that exists for the concentrated preparations, it is to be regretted that the Pharmacopœia has not given explicit directions for making them. As it is, these infusions vary much in quality, as each manufacturer has a method of his own of condensing the materials into a small compass, and of making his preparation keep. Jalapæ resina is identical with jalapin, except that no means are taken to bleach it. It is considered the active principle of the jalap root; but it is not so powerful in its action as the quantity of jalap root from which it is obtained. Before use it should be very carefully powdered, as the resin is a very irritating substance.

Some years ago, when kamela was introduced into England, it was a good deal employed as an anthelmintic; but its use has gradually declined, until it is now rarely inquired for. At this juncture it is inserted in the Pharmacopœia.

To the linimenta aconiti and belladonnæ we have already alluded. They are both most efficient preparations. A fluid ounce of the liniment represents in each case an ounce of the dried root.

Linimentum cantharidis is the name of a preparation of the Dublin Pharmacopœia, which was made by digesting the flies in olive oil. The linimentum cantharidis of the British Pharmacopœia is a totally different thing. The cantharides are first macerated in acetic acid, which is believed to render the vesicating principle more soluble. After twenty-four hours the mass is placed in a percolator, and ether is passed through it. This preparation is probably intended to imitate the blistering fluid of Messrs. Bullin and Burt, which, however, it does not much resemble, though it may be very efficacious.

Linimentum chloroformi is an excellent combination for applying chloroform externally. The oil and chloroform are quite miscible with each other, and the rapid evaporation of the chloroform is prevented by its admixture with the oil.

Under the name of linimentum iodi, a strong solution of iodine and iodide of potassium in spirit is introduced. It will replace the old tinctura iodinii composita; but it is about four times as strong.

Liquor ammoniæ acetatis of the British Pharmacopœia is about five times as strong as the preparations of the same name in the London, Edinburgh, and Dublin Pharmacopœias. Such a considerable change of strength should be well remembered.

A process is given for liquor ammoniæ fortior, which is calculated to produce a satisfactory result on a small scale. Many tests are given for ascertaining the purity of this preparation; but a very common occurrence is not noticed. The liquor ammoniæ fortior of commerce often contains organic rather than inorganic impurities, and becomes turbid when merely mixed with water, which is due to some tar products which have not been thoroughly separated.

Liquor antimonii terchloridi, for which a process is given, is the commercial butter of antimony: it is employed as the basis of the antimony preparations. This preparation is never employed in medicine; therefore, according to the rule laid down in the Preface, it should have been placed in the Appendix, which contains only substances to be used in the chemical processes of the Second Part. Another exception to the uniform arrangement of the book occurs immediately afterwards. In every other instance hitherto, the process for making any preparation is contained in the Second Part, but the characters and tests are referred to the Materia Medica. In the case, however, of liquor arsenicalis, the tests and characters are put at the end of the process. This departure from the plan which we have before had occasion to praise is probably another of the oversights in this book. The spare solubility of lime in water has led the Committee to take advantage of its far more soluble compound with sugar. The liquor calcis saccharatus contains about twelve times as much lime as the simple liquor calcis. In many of these liquors the same irregularity with regard to the tests and characters is to be remarked: those for liquor chlori, for example, being in the Materia Medica, while those for liquor calcis are in the Second (processes) Part.

In making tincture of chloride of iron, in the old Pharmacopœias, oxide of iron was directed to be dissolved in hydrochloric acid; but oxide of iron as generally found in the shops was so irregular in its solubility that the tincture thus made varied exceedingly. In order to overcome this difficulty the chloride of iron is now made direct from the iron, so that the resulting tincture will always be of the same strength. As a preliminary step, a process is given for preparing the liquor ferri perchloridi, in which the iron is dissolved in hydrochloric acid, and then oxidized with nitric acid. An objection to this process may be made—that it is almost impossible by these means to obtain a product free from nitric acid, which afterwards begins to act on the alcohol and change the tincture. A better product is obtained by dissolving the iron in an equivalent of hydrochloric acid, and then passing a stream of chlorine through it, till the whole of the iron has passed into the state of perchloride. Or the crystallized perchloride of iron (which is generally very pure) might be dissolved in a certain quantity of water. In adopting the process of the Pharmacopœia, it is of importance that the hydrochloric acid should be of the full strength of specific gravity 1·17, as the quantity ordered by the Pharmacopœia contains barely three equivalents of chlorine to the two of iron. In practice, it will be found better to use a slight excess, or a muddy liquid containing oxychloride will be obtained. The liquor hydrargyri nitratis acidus is a preparation much used by French practitioners in cases of syphilitic ulcerations, and is introduced into the Pharmacopœia for the first time. In the Materia Medica it is stated that the unguentum hydrargyri nitratis is made from this preparation. This is not the case, as for the ointment a totally different solution is specially made containing more than twice as much nitric acid. Liquor potassæ permanganatis is to be used as a disinfectant. Liquor morphiæ hydrochloratis is only half the strength of that of the London Pharmacopœia.

THE TOWNLEY CASE.

ANOTHER episode has occurred in this remarkable case. A fresh commission was appointed by Sir George Grey, with the concurrence of the Lord Chancellor, to inquire into the sanity of the prisoner. This commission, as will be seen, was formed of gentlemen experienced in lunacy. In contradiction to the opinions expressed by the three Commissioners in Lunacy officially appointed to investigate the case, by Dr. Forbes Winslow, and by the magistrates and medical men upon whose certificate the criminal was respited, Townley is now reported to be of sane mind. We subjoin their report; we publish also the report by Dr. Winslow on the mental state of the prisoner on the 18th of November and 10th of December respectively.

On Tuesday the visiting justices of Derby received the following important communication from Sir G. Grey:—

"Whitehall, Feb. 1st, 1864.

"GENTLEMEN,—I am directed by Secretary Sir George Grey, with reference to previous correspondence with you as to the

case of George Victor Townley, to inform you that, with the concurrence of the Lord Chancellor, he requested Dr. W. C. Hood and Dr. J. C. Bucknill, visitors of Chancery lunatics, together with Dr. Meyer, the medical superintendent of the Criminal Lunatic Asylum at Broadmoor, and Dr. Helps, the medical superintendent of Bethlehem Hospital, to examine into Townley's state of mind, and to report thereupon.

"Sir George Grey has received from these gentlemen a report, a copy of which is herewith transmitted to you. While the letters—copies of which were sent to you on the 23rd and 25th ult.—from the magistrates who signed the certificate of Townley's insanity leave no reason for doubting that they were convinced of his insanity at the time when the certificates were signed by them, the present report from four medical gentlemen of great experience in mental diseases appears to Sir George Grey conclusive as to Townley being of sound mind. A certificate to that effect, as required by the Act, 3rd and 4th Vict., cap. 54, has since been received by the Secretary of State.

"I am further to inform you that, taking all the circumstances of this case into consideration, her Majesty's Government are of opinion that it would not be right that the capital sentence should now be carried into effect, but that it ought to be commuted to penal servitude for life. This course has therefore been taken, and the prisoner will be dealt with accordingly.

"I am to add that it is the intention of her Majesty's Government to propose an amendment of the Act under which the certificates of insanity in this case were given.

"I am, Gentlemen, your obedient servant,

"H. WADDINGTON.

"To T. W. Evans, Esq., M.P., and W. Mundy, Esq., M.P."

"Bethlehem Hospital, Jan. 28.

"We, the undersigned, having been requested by Secretary Sir George Grey to examine into the state of mind of George Victor Townley, a prisoner under sentence of death in Bethlehem Hospital, and to report our opinion as to whether he is of unsound mind, report as follows:—

"We have carefully considered the copies of papers supplied to us, and on the 26th and 27th days of this month we have had two lengthened interviews with the prisoner, and the conclusion at which we have unanimously arrived is that George Victor Townley is of sound mind.

"The demeanour of the prisoner during each interview was calm and self-possessed, with the exception that at the commencement of the second interview he displayed and expressed annoyance at the repeated examinations to which he was being subjected. Neither in mode of speech nor in look and conduct was there any sign of insanity observable in him.

"His prompt apprehension of the purport of our questions, and the manner in which he replied to them, indicated the possession of good intellectual capacity.

"The opinions which he avows that men, as the creatures of circumstances, are not justly responsible for their actions, are opinions at which he appears to have arrived by ordinary processes of reasoning.

"That he knows that he is responsible for the commission of crime is made clear by his own words used to us,—'I expected to be hanged because I killed her, and am not such a fool as not to know that the law hangs for murder. I did not think of it at the time, or I should not have done it.'

"We think that his statement that he killed Miss Goodwin to repossess himself of her as his property was an after-thought adopted to justify his crime. He acknowledged to us that he had come to this opinion after the deed was done.

"The supposition that he killed Miss Goodwin under the influence of the opinion that in so doing he was repossessing himself of her as his property is inconsistent with his own repeated statement to us that, without forethought of any kind, he killed her under the influence of sudden impulse.

"He explained to us that by killing Miss Goodwin to repossess himself of her as his property, he simply meant that he took her out of the hands of his enemies, and placed her in a position where she would wait, and where he would rejoin her when he died.

"The prisoner endeavoured to represent the catastrophe to us as due to the influence of sudden impulse, but the details which we elicited from him show that he used threats of murder for some time before he struck the first blow. We think that his clear memory of the events attending the crime, and also the attempts which he has made to misrepresent the state of his mind and memory at the time of these events, are evidence of his sanity.

"We are of opinion that he does not entertain any delusion on the subject of a conspiracy against him, but that he uses the term conspiracy to express the real opposition which he has met with from the members of Miss Goodwin's family to his engagement with her, and also to express the feeling that they are hostile to him.

"We have considered the evidence of hereditary predisposition to insanity given in the papers supplied to us, and our opinion of the prisoner's state of mind has not been altered thereby.

"We examined the apothecary and also the chief attendant of Bethlehem as to the conduct of Townley since he has been in detention at the hospital—both of them have had him under daily and special observation—and they assure us that neither in conduct, manner, or conversation had they been enabled to observe in him any of the peculiarities which they are in the habit of remarking among the insane.

"W. CHARLES HOOD, M.D., Visitor of Chancery Lunatics.

"JOHN CHARLES BUCKNILL, M.D., Visitor of Chancery Lunatics.

"JOHN MEYER, M.D., Medical Superintendent of the Criminal Lunatic Asylum.

"W. HELPS, M.D., Medical Superintendent of the Royal Bethlehem Hospital."

MEDICO-LEGAL ANALYSIS OF THE STATE OF MIND OF G. V. TOWNLEY.

BY FORBES WINSLOW, M.D., D.C.L.

ON the 18th of November I visited Mr. G. V. Townley, then confined in the Derby County Jail, charged with the murder of Miss Elizabeth Goodwin. I saw and examined the said Mr. Townley in the presence of Mr. Leech (his legal adviser) and Mr. Sims (the governor of the jail.) My interview with the prisoner was of an hour and a half's duration. During the time I was with him he appeared perfectly calm and unruffled, and talked consecutively, showing little or no emotional excitement. Occasionally he was depressed, but soon rallied, recovering his self-possession. Once or twice he smiled at some remarks that were made. His manner was quiet and reserved. He replied without apparent hesitation to all my questions, being evidently anxious to afford me assistance in analyzing his mind. He appeared to be dealing candidly with me, and showed no disposition to conceal anything, or to fence with my questions, even those of a most searching and painful kind that I considered it to be my duty to address to him, with a view of ascertaining the past and present state of his mind.

After a few general remarks, I spoke to him of the serious nature of the crime of which he was guilty, and for which he was shortly to be tried, and asked whether he was able to realize the character of his then position and the serious nature of his offence, and if he did not regret what had occurred. He replied, with great *sang froid*, that he did not. "Have you no feeling of contrition or remorse for what you have done?" "None whatever." "No distressing feeling for having sacrificed the life of a fellow-creature?" He replied, "I have not. I consider," he added, "that I was perfectly justified in what I did." I again asked, "Cannot you believe that you have not only committed a grave violation of the law of the land, but a serious sin against God?" He replied that he could not so consider the matter.

In justification of his act, he said that he considered Miss Goodwin as his own property; that he had a perfect right to kill or to do what he liked with her; that she was as much his as if he had been married to her; and his title to deal with her as he pleased was, according to his judgment, as unquestionable, in a moral or legal point of view, as his right to dispose of any other description of property belonging to him, such as land, paintings, or household furniture. He added, in answer to other questions, that he looked upon Miss Goodwin in the light of a wife who had committed adultery; and having, according to his conviction, so acted, he was justified in killing her. I endeavoured to reason with him on this subject, and suggested that he was very singular in the opinions he entertained. He said he could not help it; he was not responsible or amenable to God or man for his opinions or actions; he did not create himself, and he was not brought into

existence by an effort of his own will; he was free to think and act as he pleased, recognising his perfect irresponsibility both in the sight of God and man.

Referring again to the death of Miss Goodwin, he said, in reply to questions, that if he had succeeded in discovering the nameand residence of the clergyman who, he considered, had estranged her affections from him, he would without any hesitation have killed him, if he had refused to fight a duel. I said, "You have no right to take the law thus into your own hands; if you have suffered a wrong, the law affords you a remedy." He rejoined, that he recognised the right of no man to interfere with his perfect freedom of thought and unfettered state of action.

"But cannot you," I asked, "view what you have done as a great sin against God, it being a direct violation of one of his commandments?" He replied, "I do not believe in the existence of sin according to the common acceptation of the term, neither have I any idea of a God or of divine providence." These, he said, were all matters of pure theory and wild speculation. "Then," I said, "you do not view yourself as an accountable agent?" He answered, "I do not." He poohpoohed altogether the idea of a future state of reward and punishment, heaven and hell; and although he did not deny the immortality of the soul, he did not believe in the resurrection of the body. I then asked him what idea he had of a future state of existence. He replied, that it was all a myth and a mystery to him. In answer to another question, he said he did not consider the Bible to be the word of God, neither did he view it as an inspired revelation of His will; he looked upon it as a mere curiosity. He said he was a fatalist; that he always was unlucky; and had felt convinced all through life that no good would come to him.

I again endeavoured to ascertain whether he had any feeling, however faint in character, of remorse or sorrow for having killed one to whom he professed to be so fondly attached. He coolly replied that he was justified in killing her, and had nothing to regret; the only compassion he felt was for the "old man" (meaning Miss Goodwin's grandfather); and he regretted that he should, by anything he had done, bring disgrace and trouble upon his family; but for himself he had no feeling of remorse or pain, and was quite prepared to meet all the consequences of his own action.

Feeling assured that he ignored all moral, religious, social, and legal obligations, I said, "Supposing any person robbed you of a picture or any article of furniture, would you be justified in taking the law into your own hands?" He said, "Certainly! If a man robbed me of a painting, I would go to his house and demand a restitution of my property, and if he did not at once surrender it, I should consider myself justified in killing him on the spot, and I would certainly do so."

I vainly tried to impress upon his mind the sinfulness as well as criminality of such conduct, but he could not or would not alter his opinions. I remarked that it was an axiom of law that "there was no wrong without a remedy;" but he said he was placed above all law human or divine, and was a free agent, and as he had not created himself, could act according to his own unbiased judgment and blind impulses, and to himself he was alone accountable for what he did or should do.

He again said, referring to the death of Miss Goodwin, "I was illegally defrauded of my property, and was justified in recovering it by force," alluding to his having stabbed and killed her. He appeared to consider that by sacrificing Miss Goodwin's life, he had "recovered" or "repossessed" himself of property that had been illegally wrested from him; and to such a degree were his moral sense perverted, notions of right and wrong vitiated, and judgment disordered, that he appeared perfectly incompetent to estimate, like a sane man, the gross fallacy and monstrous absurdity of his opinions, or to appreciate any right process of reasoning relating to his own conduct.

Reference was again made to his having repudiated all idea of a future state of existence, and of the judgment seat of God, before which all will have to appear. He said that these matters were involved in darkness and obscurity; that, in fact, he hardly believed in the existence of anything, and smilingly observed, "I sometimes bring my mind to realize that everything about me is ideal; that what I see and hear are only conceptions of my imagination, having no existence independently of myself." He said, "I have lived in a misty atmosphere," or words to that effect, "an ideal world." He remarked that suicide was justifiable; that human life was at man's own disposal, and that we were not answerable to anyone for what we might do with it. He said he had no fear of death, or dread of a hereafter, and that nothing short of a miracle would effect a change in his views upon any of these topics.

I have arrived at the following conclusions respecting the mental condition of the prisoner, judging from facts observed by myself during my interview with him:—

1st. His general intelligence is below the average. This was clearly indicated during the whole of my conversation with the prisoner. He did not appear competent to grasp an elementary proposition, neither was he able to reason logically or even fallaciously on the most ordinary topics.

2nd. His judgment, particularly when exercised in matters relating to his own position and conduct, and directed to the consideration of subjects upon which the generality of right-thinking and educated men are agreed, is grossly defective.

3rd. His reasoning powers are extremely weak, if not singularly perverted.

4th. The moral faculties appear to be either in a disordered condition, or in an undeveloped state.

I will illustrate, in detail, the preceding propositions:—

The prisoner exhibits his general want of intelligence by an incapacity to reason, not only correctly, but with common ability, on ordinary subjects of conversation. He is unable to grasp a simple and self-evident truth suggested to him by others, or to assign a reason for the singular opinions he himself entertains. He is the beau ideal of a dogmatist: he says, "I think so and so;" "such is my creed;" "such is my belief;" but if requested to state upon what grounds he bases his views, he is evidently unable to do so.

Certain notions respecting himself and others,—particular sentiments regarding his social status,—strange notions relating to morals, ethics, and religion, have taken forcible and tyrannical possession of his mind, and he appears almost unconsciously to have adopted these crude ideas, and feels it imperatively necessary to blindly act upon them, being apparently quite incompetent to explain the foundation of his faith. In these particulars he has a most singularly organized and unhealthy mind, and differs in many important points from those who entertain somewhat analogous views, and are designated freethinkers, infidels, and sceptics. The three classes just mentioned are, as a rule, competent to argue, however (as some may think) fallaciously, with their adversaries, and are able to bring, as they conceive, conclusive evidence to establish their doctrines; but the prisoner has accepted certain *formulæ*, social, religious, and moral, as the bases of his belief, and to these he dogmatically and tenaciously adheres, without attempting or being able to exercise a right or even a false process of ratiocination in regard to them.

His judgment is most defective. He could not understand that he was living in a country governed by certain well-considered and defined laws, and that these were framed and enacted by the Legislature for the general well being and protection of society, and were legally and morally binding upon every individual citizen of the State. He considered that he was placed above the law of man, and was not to be held amenable to any human tribunal for what he thought or did; in other words, he was of opinion that in every respect he had a right to think and act as he pleased.

With a view of illustrating his mind on this particular aspect, he remarked that if a person stole a picture from his house, and refused to surrender it to him, he would have no hesitation in killing him. He was unable to realize that by enforcing a simple process of law he could recover his property. He repudiated all law as binding upon himself; he was above and superior to the law of the land, and did not recognise the right of judicial tribunals to sit in judgment upon his actions. He maintained that he was at perfect liberty to take the law into his own hands, and to act in blind obedience to the dictates of his own judgment, and was justified in implicitly yielding to the slavish influences of his own passions.

His manifestly defective powers of reasoning, and palpable inability to distinguish between right and wrong, good and evil, were clearly exhibited whilst attempting to justify to me the murder of Miss Goodwin. Although only betrothed to her, and having at the time he committed the fatal deed letters of dismissal from her in his possession, he was fixedly impressed with the idea that she was, to all intents and purposes, his wife, and as such he was at liberty to deal with her as he thought fit. But more than this, he believed, accepting his own affirmation as true, that as she had endeavoured to break off the engagement with him, he had the right to view her in the light of an adultress, and having committed so grave an offence, he was perfectly justified in acting up to his own conceptions of human and divine laws—notions of right and wrong—in sacrificing her life! She was as much his, he asserted, as the painting on his wall, the money in his pocket, the furniture in his house; and he had full power and authority to deal with her as he

should have done with any other species of property belonging to him. I vainly endeavoured to combat with this grossly absurd and insane notion. It was his belief, he said, and no man could induce him to think otherwise.

I have briefly, in conclusion, to consider whether the prisoner George Townley is now insane, and incapable of distinguishing between right and wrong. Although, properly speaking, he cannot be viewed as in an acute state of insanity, I am nevertheless of opinion that his mind is in a disordered condition, such mental alienation exhibiting itself principally in an inability to realize in a sane manner that he has committed a crime at all, in his attempt to justify his murderous act, and in the absence of all the natural and healthy feelings of regret, contrition, and remorse observed in the generality of criminals. The repudiation of the fact of his having committed a crime; his firm assertion that he cannot consider it in the light of a violation of the law; his cool justification of the act, alleging that Miss Goodwin was his own property, and that he had a perfect right to deal with her life as he pleased; that having committed, as he conceived, adultery, he was at full liberty to kill her,—establish (when viewed in connexion with his mental state for some days prior to the murder, as well as the accompanying and subsequent circumstances of the crime itself) a condition of mental derangement.

Again, his stoical and Spartan indifference as to the judicial consequences of the crime; his fixed and unalterable belief that he owes no allegiance to any human or divine tribunal; his steady, unwavering affirmation that he is not accountable to God or man for anything his judgment or passions may incite him to do; his singular if not insane idea that he has a right to take the law into his own hands, and even to sacrifice human life if he could not recover property stolen from him by simply demanding its surrender; the total absence, perversion, or paralysis of the moral faculties, which, when developed and in a normal condition, are so important in the regulation, government, and guidance of those acts, states, or forms of mental manifestation which involve in their condition of activity an exercise of the judgment and reasoning powers, as well as the will,—are entitled to great weight when considering the question whether the prisoner is at present in a sound and responsible state of mind.

In making an analysis of his mental condition I cannot entirely ignore his openly avowed infidelity and scepticism. His expressions of religious unbelief when viewed by themselves cannot philosophically be considered as symptoms of mental derangement, but they become important *data* in the psychological investigation of an alleged or suspected state of alienation of mind, particularly when associated with distorted and perverted perceptions and sensations very similar in character to, if not identical in nature with, the delusive ideas of the insane, or allied to a course of irrational conduct inconsistent with the supposition of the existence of the healthy control over the will, such defective power clearly arising from some form of disease of the brain.*

I think it right to state, that during the whole of my interview with the prisoner, he was not aware of my name or, I believe, the object of my visit.

On the evening of the 10th of December I had a second lengthened interview with the prisoner, and discovered more convincing and conclusive evidences of his mental derangement than I was able to do in my first interview, on the 21st of November. His manner, physiognomy, and general mode of conversation impressed me strongly with an idea of his insanity. He said that he had for some time prior to the 21st of August last been the subject of a conspiracy; that the said conspiracy still existed, and would continue its operations against him even if he were released from prison. "If that were to occur," he added, "I would leave the country, and make my escape from this gang leagued against me." This delusion he only referred to in general terms at my first interview. During this examination he became at one period quite maniacal in his conduct, satisfactorily proving to all who were present an unquestionable state of mental disorder.

* His singular views on religious subjects have (as I am informed on good authority) only been entertained since he committed his crime. This constitutes an important feature in the case *quoad* the question as to the prisoner's state of mind at this time.

GALVANISM IN LOCK-JAW.—At the last sitting of the Academy of Sciences M. Matteucci described the application of galvanic electricity for the relief of lock-jaw. From thirty to sixty pairs of plates were used. It appears that great temporary relief was afforded, but the means were insufficient to effect a cure.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

YOUR Dublin correspondent, in his letter in THE LANCET of the 23rd ultimo, announces the death of the vice-president of the College of Surgeons in Ireland. In Edinburgh, our College of Surgeons has also to mourn the loss of its vice-president, Dr. Patrick S. K. Newbigging. He was a graduate of this University, became a fellow of the College of Surgeons in 1834, and was president from Nov. 1861 to Nov. 1863. He had also been recently president of the Society of Arts, and was a fellow of the Royal Society of Edinburgh. He had held various appointments, and at the time of his death was one of the ordinary physicians to the Sick Children's Hospital—an institution in which he took great interest. Dr. Newbigging was much esteemed by his professional brethren, and had a large and excellent practice, having obtained the confidence of numerous and influential patients by his skill as a practitioner and his kindness of manner. His health had been considerably impaired for some time past, and it was known that there was an affection not only of the heart but also of the large vessels. For a few days before his death he had been suffering from a cold, which terminated in an attack of bronchitis; and this, complicated with the cardiac disease, occasioned his death, rather suddenly, at one o'clock on the morning of the 18th ult. He died in his prime: he was only about fifty years of age.

Dr. Newbigging's death caused a vacancy in the office of surgeon to one of our charitable educational establishments—J. Watson's institution. The number of applicants for the appointment was very large (eight are said to have come to the vote), the successful competitor being Dr. Dunsmure, consulting surgeon to the Royal Infirmary.

An appointment has recently been made to another of our charitable institutions—that of Dr. Malcolm to the Fettes College. The College is not yet built, but is expected to be completed and ready for opening in about five years. There are to be a certain number of children resident in the institution, and others are to be received as day scholars. The period when Dr. Malcolm commences duty is still distant, but the governors of the institution have shown a right feeling in conferring this honour, Dr. Malcolm having been, I understand, the medical adviser of Mr. Fettes at the time of his death.

At the Obstetrical Society, on Wednesday evening, the 13th ult., after an interesting communication by Dr. Keiller on "Cases of Double Monstrosity," there was a discussion on the Vaccination Act for Scotland, which ended in the following resolutions being unanimously passed:—

1st. "That this Society is of opinion that the duty of furnishing one certificate of vaccination without payment, imposed by the Vaccination Act upon medical men, is sufficiently irksome, and that where duplicate certificates are required they should be furnished by the registrar of the respective districts."

2nd. "That this Society, having considered the Vaccination Act, is of opinion that provision having been made for the payment of the vaccination of paupers and others requiring such aid at the public expense, it is no longer necessary or expedient for medical men to perform this operation gratuitously."

It is to be hoped that the practitioners in Scotland will benefit by the resolutions of the Society, and will not grant the double certificate which the Registrar-General instigates the people to demand; and it is to be desired, now that Government has made vaccination compulsory, that those in charge of a child will pay for the operation. Medical men, in cases where a charge for vaccination is objected to, will, however, now have the resolutions of the Society to support them in their legitimate demand.

On the 22nd the President and Fellows of the College of Surgeons had a numerously attended *conversazione* in their Hall.

The attraction of the evening was an address by the veteran Fellow, Dr. Gairdner, "On the Early History of the Medical Profession in Edinburgh." He could not, of course, give an address upon such a subject without tracing the connexion which in early days existed between the barbers and surgeons, an origin of which the lecturer seemed proud. The pole and ribbon, the barbers' emblem, Dr. Gairdner considered, from their being so universally displayed in almost every part of Europe, must be traced to some widely diffused cause, the one explanation of which he conceived to be the fact that monks not only required to have their heads shaved but also to be

bled at stated periods; and, therefore, wherever there were monks there must be barbers. The relations between the College of Surgeons and Protestantism in early times were, he proceeded to show, very close, and, apparently, intended to exclude the Romanists. The attention paid by the profession to the observance of the Sabbath two centuries ago was also alluded to by Dr. Gairdner, but it does not seem to have been quite so strictly observed in those days as at present, business of a very secular character having on that day been transacted. The necessity for apprenticeship in the sixteenth century, which was the sole means of medical instruction, was then pointed out. The lecturer concluded an interesting address with some amusing remarks upon the measures taken by the College to keep apprentices within due bounds, as from the laws of the College the sons and sons-in-law of the members were admitted on easier terms than less fortunate aspirants. Legislation upon apprentices and concerning the behaviour of their masters' daughters was considered not to be unworthy of the attention of the corporation of Surgeons. The lecture is to appear at length in the next number of the *Edinburgh Medical Journal*, when it will, no doubt, be read with pleasure by all interested in the history of our profession.

Edinburgh, Feb. 1st, 1864.

THE "LANCET" LANCASHIRE DISTRESS MEDICAL FUND.

AT a meeting of the Committee, held at this office on the 3rd inst., it was determined to remit £10 to Mr. Fisher, Senior House-Surgeon to the Preston Dispensary, and £10 to Dr. Ward, of Glossop. The Committee will meet again on the 17th inst., for the purpose of making further grants and disposing of the balance.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 25th ult.:—

Anthonisz, James Edmund, L.S.A., Ceylon.
Bennett, Charles John, Buxton, Derbyshire.
Cockerton, Alfred John, Islington.
Curgenven, William Grafton, M.D., Plymouth.
Garlike, Edward William Bennett, Tulse-hill.
Green, Frederick King, Stoke Newington.
Griffin, Frederic Charles Griffith, Weymouth.
Hewby, John Petch, Ripon, Yorkshire.
Hope, Frederick Samuel, Kerby-Flectham, Yorkshire.
Jones, Hermann Johnston, M.D., Upper Clapton.
Langhorn, Joseph, Savile-row.
Law, Caleb, Australia.
Long, Henry Plater, Barham, Canterbury.
M'Connell, William, Lisburn, Ireland.
Pearson, Edwin B., Yeaveley, near Ashbourne, Derbyshire.
Peirson, George Brigg, Leeds.
Penn, William Cecil, Edwardes-square, Kensington.
Philpot, Frederick, L.F.P. & S. Glas., Chelsea.
Skinner, William, Sheffield.
White, George, Dalston.

At the same meeting of the Court, Mr. JOSIAH FREDERICK KYNSEY, L.R.C.P.I., passed his examination for Naval Surgeon. This gentleman had previously been admitted a Member of the College, his diploma bearing date July 19th, 1859.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 28th ult.:—

Arnold, Richard Orlando, Charing-cross Hospital.
Costin, John Quick, Kimbolton, Hunts.
Davies, Richard William, Colnbrook, Bucks.
Duncan, Peter Charles, Great Marlborough-street.
Langston, Thomas, Hulme, Manchester.
More, James, Rothwell, Northamptonshire.

The following gentleman also on the same day passed his first examination:—

Williams, David Martin, Charing-cross Hospital.

The following gentlemen passed their preliminary examination in Arts, and received certificates of proficiency in general, on the 29th and 30th ult.:—

Archer, E. G., Feltwell, near Brandon.
Atkinson, R., Coniston, Waterhead.
Bennett, C., Bury, Lancashire.
Bennett, W. J., Dorchester.
Beechey, F. M. C., Norfolk-square.
Bland, G., Stourbridge.
Castle, J. H., Euston-square.
Crew, Clifford, Rose-place, Guernsey.
Costerton, D. S., Lucas-place, Commercial-road.
Coombs, R. H., Rydon-crescent, Islington.
Davies, F. P., Birmingham.
Glencross, F. J., Devonport.
Griesbach, S., Leeds.
Helsdon, C. V., Frances-street, Torrington-square.
Lee, J. A., Congleton.
Moxon, G. J., Brigg, Lincolnshire.
Morrison, S., Westbourne-park-terrace.
Massingham, J., Green-street, Bethnal-green.
Norton, H., Westbourne-grove West.
Owens, E. M., Sutton, Surrey.
Payne, G., Wallingford, Berks.
Powell, W., Cheltenham.
Prankerd, O. R., Langport, Somerset.
Swindell, J. J., Whetstone.
Sculthorpe, A. M., Bedey, Worcestershire.
Trezise, W. R., Penzance.

CAMBRIDGE UNIVERSITY.—At a Congregation held by the Senate on the 30th ultimo, the degree of B.A. was conferred on

Beck, J. Theophilus, M.R.C.S. and L.S.A.
Dickson, John Thompson, M.R.C.S.

SIR WILLIAM WILDE.—The Lord Lieutenant has conferred the well-deserved honour of knighthood on William Robert Wills Wilde, Surgeon-Oculist in Ireland to her Majesty, and Assistant Census Commissioner. Sir William has many high claims to that distinction. His labours in Ophthalmology long since raised him to a high position in that department of surgery, and his devotion to the elaboration of the vital statistics of Ireland has enabled him to render great public service in this important matter. Sir William Wilde has taken part in the compilation of three successive censuses for Ireland, and is known also by his erudite antiquarian studies, which have won for him a considerable reputation as an accomplished archæologist. We congratulate the Irish profession on the honour bestowed on one of its most distinguished representatives.

SCHOLARSHIPS IN NATURAL SCIENCE IN CAMBRIDGE.—Two scholarships, each of £40 per annum, tenable for three years at least, are announced to be given for Natural Science at Sidney Sussex College, in October next. The subjects of examination are, Electricity, Chemistry, Geology, and Anatomy. They are open to all the world. The successful candidates to enter at the College and reside. Information may be obtained from the Rev. J. C. W. Ellis, Tutor to the College.

PUBLIC JUSTICE.—Surgeon Turnbull, of the 6th Dragoons, has been tried by Court-martial since the Crawley case, and, like his chief, has been "honourably acquitted."

LEEDS INFIRMARY.—The foundation-stone of this edifice is to be laid on Easter Tuesday, March 29th, by Mr. Kitson, Chairman of the Building Committee.

DONCASTER DISPENSARY.—Several meetings have recently been held at Doncaster, attended by the principal inhabitants, to consider the propriety of founding an Infirmary in that place. There is every probability that the proposed institution will be established. On Friday last, a deputation from the Infirmary Committee attended a special meeting of the Governors of the Dispensary, and it was unanimously agreed that the site chosen for the Infirmary would be equally eligible for the purposes of the Dispensary, the amalgamation of the two institutions being considered desirable.

ISOLATION OF FEVER WARDS IN HOSPITALS.—Dr. R. D. Thomson, in his report on the health of Marylebone for December, has the following remarks on this subject:—"From the total want of sufficient means of isolating epidemic and contagious diseases in the public hospitals, and from the increasing density of the population of the metropolis, the local authorities must in future make up their minds to provide for a certain number of sick during the prevalence of infectious zymotic disease. It is to be hoped that the larger and more wealthy hospitals will see fit to provide distinct isolated wards for contagious diseases, as is universally the case in country infirmaries. If this desideratum be not supplied, these institutions will in a good degree be superseded by parish infirmaries and dispensaries."

THE LATE PROFESSOR VROLIK.—Death has recently closed the career of a very eminent cultivator of natural science and an excellent man, Prof. Willem Vrolik, who died on the 22nd December, at the age of sixty-two. He was the eldest son of Prof. Gerardus Vrolik, and was born at Amsterdam, April 29, 1801. He studied first at Amsterdam, and afterwards at the University of Utrecht, and then at Paris, from

October, 1822, to April, 1823. On his return to Holland he took the degree of Doctor of Medicine at Utrecht, June 10, 1823. After his marriage with Theodora Cornelia van Doorn, he travelled in Germany, visiting Berlin and Saxony. Being established at Amsterdam in the practice of medicine, he exercised this profession until 1829, when he accepted the appointment of extraordinary Professor of Anatomy in the University of Groningen. He was occupied in the campaign on the frontiers of Holland and in Belgium from the end of 1830 till November, 1831, serving with the volunteers of the students of Groningen and Franeker. In the latter year he received an invitation to the chair of Anatomy, Physiology, and Zoology in the Athenæum of Amsterdam. He occupied this chair with distinction for more than thirty years, having, in the spring of 1863, on account of his declining health, been compelled to resign. The works of Prof. W. Vrolik are numerous. They are mostly on comparative Anatomy, chiefly of the mammalia, and upon morbid anatomy. In the first science the principal are:—"Recherches d'Anatomie comparée sur le Chimpansé," fol., 1841, with fine plates; and "Natuur-en Outleedkundige Beschouwing vander Hyperoodon" (Delphinus edentulus), 1848. Printed in the "Natuurkundige Verhandelingen van de hollandsche Maatschappij der Wetenschappe te Haarlem." On morbid anatomy, or teratology, his works are important, and valuable on the origin of Cyclopy. His chief work is "Handboek der zichtekundige Outleedkunde. Aangeboren Getreken," 2 vols., 1840-1842; and "Tabulæ ad illustrandam Embryogenesin Hominis et Mammalium, tam naturalem quam abnormem," (100 plates, 4to.) For this work he received the Monthyon prize from the Academy of Sciences, at Paris, in 1850. English medical literature contains specimens of his researches in both these departments of science. In the fourth volume of Todd's "Cyclopædia of Anatomy and Physiology" appear his articles, "Quadrumana" and "Teratology." Willem Vrolik was Knight of the Military Order of William (after 1831), of the Order of the Dutch Lion, 1855, and a member of many learned societies.—*Athenæum.*

THE ALLEGED CASE OF POISONING BY A MEDICAL MAN IN PARIS.—We mentioned a short time since that a homœopath, of Paris, had been taken into custody upon the charge of poisoning a lady, whose life was insured in his favour for £22,000. The case, according to French law, is being investigated by the judge specially entrusted with the preliminary steps in the trial (juge d'instruction), the prisoner being all the while under close arrest. It would appear that these investigations have led to disclosures which throw additional suspicions upon the prisoner respecting the death of his mother-in-law, which took place two years ago. A great many witnesses have been examined, and careful analysis made by medical men, upon the directions of the judge. The investigation is not as yet concluded. The prisoner does not seem much affected by his incarceration and the impending trial. Nay, his activity, vivacity, and petulence seem on the increase, as he is very busy with a lengthy correspondence and satirical writings, in which the persons principally engaged in the investigation are very roughly handled.

Obituary.

WILLIAM JOHN WICKHAM, F.R.C.S.

MR. WICKHAM was one of the best known of our provincial surgeons. For more than forty years he was connected with the Hampshire County Hospital, and raised for himself a reputation which might justly be regarded as equal to that of Hey, of Leeds. His work on the Joints is still looked upon as a standard work. He contributed various papers to the medical journals, and until a very short period of his decease was occupied in a consulting practice which far exceeded the limits of the county in which he lived. Mr. Wickham was estimable in private life, and his loss will be felt by a numerous circle of friends, and a large number of practitioners who were in the habit of availing themselves of his valuable assistance in cases of difficulty. He was a pupil of the united hospitals of Guy's and St. Thomas's, and by his conduct through life fully sustained the reputation of those, at that time, justly celebrated seminaries. Mr. Wickham was essentially a practical man, and carried out in his practice the fundamental principles of surgery, which he had imbibed from the lessons of those great masters of the art, Cline and Cooper. Winchester is associated with eminent names in surgery; Mayo is still spared to us, and it is honourable to the ancient city that it has upheld, in spite of the adverse regulations of the Royal College of Surgeons, the great reputation of provincial practitioners.

DR. MICHAEL LAMBTON ESTE.

THIS estimable member of our profession died last week at the advanced age of eighty-six. For a long series of years he was attached to the naval service of this country, and had the honour of being private secretary to the great Lord Nelson. He subsequently practised in London, and filled important offices in the Apothecaries' Society. He was a gentleman and a scholar, and had a keen appreciation, not only of the duties, but of the status which should be occupied by an honourable practitioner of medicine. Those who knew him in his happier hours, when he mixed with his *confrères* at the social board, could not fail to be struck with the genial characteristics of the "fine old gentleman." To the last he exhibited his sympathies with his brethren. He belonged to a class which is now becoming extinct, being, as it were, a link between the past and the present—a good example of the men of times gone by, who upheld by their example the dignity and the usefulness of the profession.

MEDICAL VACANCIES.

Ashton-under-Lyne District Infirmary—House-Surgeon.
Birmingham General Dispensary—Resident Surgeon-Accoucheur.
Notting-hill and Shepherd's-bush Dispensary—Resident Medical Officer.
South Staffordshire General Hospital—Physician, vice Dr. Wollaston, resigned.
Torbay Infirmary—House-Surgeon.

MEDICAL APPOINTMENTS.

J. T. BANKS, M.D., has been re-elected King's Professor of the Practice of Medicine in the King and Queen's College of Physicians, Dublin.
F. BUCKLE, M.D., has been appointed Assistant House-Surgeon to the Kent and Canterbury Hospital, vice C. Smith, M.R.C.S., resigned.
F. J. BUTLER, M.D., has been appointed Surgeon to the County Prison, Winchester, and to the County Police, vice H. G. Lyford, M.D., resigned.
T. CLARKSON, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Bedale District of the Leyburn Union, Yorkshire, vice R. Fothergill, M.R.C.S.E.
G. V. COOPER, M.R.C.S.E., has been appointed Medical Officer for Districts Nos. 1 and 2 of the Cricklade and Wootton-Bassett Union, Wiltshire, vice G. D. Hooper, L.S.A., resigned.
W. CULLINAN, L.K.Q.C.P.I., has been elected Surgeon to the County of Clare Infirmary, vice G. W. O'Brien, M.D., deceased.
R. H. DAWSON, M.R.C.S.E., has been appointed Medical Officer for the Eastern District of the Pateley-bridge Union, Yorkshire, vice W. C. Cautley, M.R.C.S. Eng., resigned.
G. ELKINGTON, jun., M.R.C.S.E., has been elected Junior Resident Surgeon to the General Dispensary, Birmingham, vice T. Barnie, L.R.C.S.Ed., resigned.
G. H. FOSBROKE, M.R.C.S.E., has been appointed Medical Officer for the Petworth District of the Evesham Union, Worcestershire, vice J. A. Cooksey, L.R.C.P.Ed., resigned.
W. HALL, M.R.C.S.E., Lecturer on Botany at the Leeds School of Medicine, has been appointed Assistant-Surgeon to the Hospital for Women and Children, Leeds.
J. J. HARDESTY, L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Lester, Haddingtonshire.
G. S. D. HARRIS, L.R.C.P.L., has been appointed Medical Officer for the Haxey District of the Gainsborough Union, Lincolnshire, vice S. Ross, M.R.C.S.E.
J. KEMPTHORNE, M.R.C.S.E., has been appointed Medical Officer for the Callington or No. 8 District of the Liskeard Union, Cornwall, vice W. Bowden, M.R.C.S.E., resigned.
J. MORRIS, M.R.C.S.E., has been elected House-Surgeon to the Warneford Hospital, Leamington, vice T. S. Swinson, M.R.C.S.E., whose appointment has expired.
G. REED, M.D., formerly House-Surgeon to St. Bartholomew's Hospital, and late Resident Medical Officer to the London Fever Hospital, has been elected Resident Medical Officer to the Manchester Royal Infirmary and Dispensary, vice M. R. Day, M.R.C.S.E., deceased.
J. SHARMAN, M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the Infant Poor at Norwood and the Out-door District of Norwood, in the Parish of Lambeth, vice A. B. Sharpe, M.D., resigned.
E. S. SINCLAIR, L.F.P. & S. Glas., has been appointed Public Vaccinator for the Parish of Canisbay, John O'Groat's, N.B.
Mr. WM. STOKES has been appointed Surgeon to the Meath Hospital, Dublin, vacant by the death of J. Smyly, F.R.C.S.I.
J. WALLACE, M.D., has been appointed Medical Officer for the Dalston District of the Carlisle Union, vice M. M. Story, M.R.C.S.E.
F. H. WOOD, M.R.C.S.E., has been elected Medical Officer for the Brookland or No. 3 District of the Romney-marsh Union, Kent, vice F. Waghorn, M.D., resigned.

Births, Marriages, and Deaths.

BIRTHS.

On the 21st ult., at Regency-square, Brighton, the wife of Dr. Dill, of a daughter.
On the 23rd ult., at Albion-terrace, Guernsey, the wife of H. Bate, M.R.C.S.E., of a son.
On the 28th ult., at Hoe-place House, Plymouth, the wife of Frederic Harvey, M.R.C.S.E., Staff Surgeon R.N., of a daughter.

On the 26th ult., the wife of F. Le Gros Clark, F.R.C.S.E., of St. Thomas's-street, Southwark, and Lee, Kent, of a son.
On the 30th ult., at Cairnbank House, Brechin, the wife of Dr. S. S. Millar, of a son.
On the 29th ult., at Nottingham-place, the wife of Dr. Cameron, Deputy-Inspector-General of Hospitals Army, of a daughter.
On the 29th ult., at Regency-square, Brighton, the wife of A. A. W. Johnson, F.R.C.S.E., of a daughter.
On the 1st inst., the wife of James Walker, M.D., of North Frodingham, Driffield, of a son.

MARRIAGES.

On the 28th ult., at Holy Trinity Church, Clapham, R. Southey, B.M., to Frances Marianne, daughter of the late Rev. W. Thornton, Rector of Llanwarne, Ross.
On the 28th ult., at Cross-hill, Cathcart, W. Brown, M.D., of Glasgow, to Margaret, daughter of the late W. Dewar, Esq., of Glasgow.

DEATHS.

On the 5th ult., at Newcastle-under-Lyne, Samuel M. Turner, F.R.C.S., Surgeon-Extr. to the North Staffordshire Infirmary, aged 45.
On the 20th ult., J. Honeywood, M.R.C.S.E., of Blackfriars-road, aged 45.
On the 24th ult., at San Remo, Italy, E. R. Harvey, M.D., of Clarges-street, Piccadilly, aged 32.
On the 28th ult., at Tivoli Villa, Cheltenham, H. W. Clifford, M.R.C.S., aged 26.
On the 31st ult., at Caistor, Lincolnshire, W. Nicoll, Surgeon, formerly of The Hyde, Hendon, Middlesex, aged 60.

Medical Diary of the Week.

MONDAY, FEB. 8.
- ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M.
- METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
- MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Gibb, "On Subglottic Œdema of the Larynx."

TUESDAY, FEB. 9
- GUY'S HOSPITAL.—Operations, 1½ P.M.
- WESTMINSTER HOSPITAL.—Operations, 2 P.M.
- ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Experimental Optics."
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Huxley, "On the Structure and Classification of the Mammalia."
- ETHNOLOGICAL SOCIETY. — 8 P.M. Mr. Augustus Oldfield, "On the Ethnology of Australia."
- ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON. — 8 P.M. Ballot. — 8½ P.M. Mr. Callender's "Account of Amputations at St. Bartholomew's Hospital, 1853-63." — Mr. Savory, "On the Absorption of Dead Bone."

WEDNESDAY, FEB. 10
- MIDDLESEX HOSPITAL.—Operations, 1 P.M.
- ST. MARY'S HOSPITAL.—Operations, 1 P.M.
- UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
- ROYAL COLLEGE OF PHYSICIANS. — 5 P.M. Dr. Garrod: "The British Pharmacopœia; its Construction, its Comparison with the London Pharmacopœia, and the Value of its New Remedies in the Treatment of Disease."

THURSDAY, FEB. 11.
- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL — Operations, 1 P.M.
- LONDON HOSPITAL.—Operations, 1½ P.M.
- GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M.
- LONDON SURGICAL HOME.—Operations, 2 P.M.
- WEST LONDON HOSPITAL.—Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
- ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Experimental Optics."
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Huxley, "On the Structure and Classification of the Mammalia."

FRIDAY, FEB. 12.
- WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
- ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Gulstonian Lectures: Dr. Markham, "On the Uses of Blood-letting in Disease."
- ROYAL INSTITUTION. — 8 P.M. Prof. Franklyn, "On the Synthesis of Organic Bodies."

SATURDAY, FEB. 13.
- ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.
- LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M.
- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
- KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
- ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
- CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
- ROYAL INSTITUTION. — 3 P.M. Prof. Frankland, "On the Metallic Elements."
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Huxley, "On the Structure and Classification of the Mammalia."

To Correspondents.

RANCID CASTOR OIL.

A CORRESPONDENT (*D. M.*) in a Midland County has forwarded to us a case in which a fatal result appears to have arisen to a child from the administration of rancid castor oil. He states that in an hour or two after the exhibition of the oil for a slight febrile attack, purging with severe griping pains ensued; insensibility followed; the stools were passed in bed; the fæces had a most nauseous smell, and were immediately thrown away; the purging continued for two days and nights, when the child sank from exhaustion. Our correspondent inquires whether similar effects have been observed by other practitioners, and refers to Neligan's description of the symptoms produced by castor oil when at all rancid.

Mr. James Mitchell, (Barrow-in-Furness.)—Though the letter may contain mere matters of fact, it is yet libellous. Should the offender assume any title implying that he is registered under the Act, he should be at once summoned before a magistrate. If it can be proved that he has practised as an apothecary, he may be prosecuted under the Act of 1815.

W. C. will find the information he requires in Dr. Copland's "Dictionary of Practical Medicine."

Prof. Gamgee's communication shall be inserted in our next impression.

ARMY MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—I can assure you that it was with most heartfelt and deeply thankful feelings that the army medical officers stationed in this large division read your admirably written leading article on them and their present position in THE LANCET of the 14th November last, more especially as you have touched upon a chord peculiarly sensitive—namely, the present very unsatisfactory and unmeaning titles now used to designate the different grades in the department! Unsatisfactory, inasmuch as the title of assistant-surgeon does not explain to the public the relative rank of the possessor or his standing in the service, either departmentally or otherwise. Unmeaning I have called them, as to call a person an *assistant*-surgeon who has been legally declared by the Royal Colleges, and in some cases by the very oldest Universities, a *surgeon*, seems to me, and to a great many others (to whom I have spoken on the subject), a retrogression. Again, calling an officer whose rank is that of a lieutenant-colonel, a surgeon-*major*, is ridiculous, as it implies that he is a surgeon whose relative rank is on a par with a major ("Brummagem" or otherwise) only!

Without trespassing on your kindly afforded space too much, or boring your readers, I shall leave the remaining very inexpressive titles unreviewed, and at once act on the hint given in the issue of your journal already alluded to—namely, cannot a better nomenclature of the different grades of the army medical officers be found than that which at present exists? Having taken the opinion of a very large number of army medical officers (both of the Royal and Indian armies) in this country, and on analyzing their views, I think I am correct in stating that unhesitatingly they one and all unanimously agreed that the following classification would meet all the requirements now so urgently demanded:—

Existing Titles.	*Proposed Titles.*
Director-General	Surgeon-General-in-Chief.
Inspector-General of three years' service... ...	Surgeon-Major-General.
Inspector-General under three years' service ...	Surgeon-Brigadier-General.
Deputy Inspector-General	Surgeon-Colonel.
Surgeon-Major	Surgeon-Lieut.-Colonel.
Staff or Regimental Surgeon	Major-Surgeon.
Assistant-Surgeon of six years' service	Surgeon-Captain.
Assistant-Surgeon under six years' service ...	Surgeon-Lieutenant.

At a glance the above titles will at once show, even to the most thoughtless, the departmental, as well as army rank of each officer. The idea of the foregoing proposed titles belongs to Deputy Inspector-General G. B. Dartnell, half-pay Army Medical Department; the only part that I can claim any originality for is that of "Major-Surgeon," and I have done that with the approval of a very large number of influential officers, as it will at once obviate the absurd and at times disagreeable mistakes now almost daily made by official gazettes, &c. &c., in confusing officers' and non-commissioned officers' titles.

Should this letter happen to catch the eye of the distinguished officer at the head of our department, I can assure him that nothing would tend to re-establish the present waning zeal and energies of the medical service more than a reorganization of the present unmeaning titles.

Thanking you, Sir, for the powerful way in which you have always wielded your pen in pointing out our grievances, as well as for the space in your columns on all occasions so kindly thrown open to us,

I have the honour to be, Sir, your obedient servant,

India, December, 1863. A SURGEON-LIEUTENANT.

P.S.—Before long (D.V.) I propose giving your readers some few insights into the way army medical officers are treated in India, on points as yet untouched upon by any of your Indian correspondents.

G. H. M.—The spasm may have either a direct or a reflex origin. The incident excitors of the latter form of the malady vary in different cases. Refer to the last edition of the "Diseases of Infancy and Childhood," by Dr. C. West, and to the important systematic treatise of Billiet and Barthez.

Anxious should apply to the Hospital for Consumption, Brompton.

"THE PUFF OBLIQUE."

To the Editor of THE LANCET.

SIR,—I observe that you remark upon Mr. Coxeter's Catalogue as showing a tendency to "puff." May I ask your opinion of the advertisement of the said Catalogue, which appears weekly with the name of one surgeon paraded in large letters in conjunction with an instrument for the treatment of stricture? Is not this another specimen of the "puff oblique"?

Yours faithfully,

January, 1864. OBSERVER.

Pharmaceuticus.—The Hamamelis Virginica, or Witch Hazel, is employed in America chiefly, we believe, as a haemostatic. The great demand for matico which has recently arisen, in consequence principally of its extensive use in the States of North America, it has become scarce and of high price; and indeed at the present time true matico—that which is to be officinal in the new British Pharmacopœia—is scarcely to be obtained in any quantity in this country. Both Messrs. Bentley and Sandford maintain that the local styptic action of matico is due essentially to the presence of an essential oil, and not to the peculiar structure of the leaf, which is quite insufficient to account for its remarkable effect in certain cases.

FRASER AND ANDREWS DEFENCE FUND.

THE following additional subscriptions have been received since our last:—Dr. Jenner, £2 2s.; Dr. Lingen, Hereford, £1 1s.; A Friend, Lower Norwood, 5s.

Dubitans.—Dr. Koch advises (*Repertoire de Pharmacie*) the application of an ointment of the cyanide of mercury to the scrotum in cases of hydrocele.

ABNORMAL PRODUCTS IN THE URINE.

To the Editor of THE LANCET.

SIR,—In the microscopical examination of the urine, accidental elements are perhaps as interesting as the abnormal products of disease; that is to say, those entirely foreign substances afford great room for speculation as to how they found their way thither.

An example of this lately occurred in a patient of mine. On making a microscopical examination, I found an animalcule of the genus Arachnidæ. It certainly differed from the Acarus scabiei, which indeed it could not be, as my patient had no symptoms of cutaneous irritation, neither had any of his family. It might have been mistaken for the Stockholm acarus were it not for these differences—namely, the presence of long bristly hairs on its body, and a single tarsal hook on each extremity. I am convinced it was nothing else than the common cheese mite, although I am quite at a loss how to account for its presence. Neither my patient nor his family had been using cheese. I myself washed the bottle into which the urine was put, and yet the mites were present in large numbers.

Perhaps you might consider these facts worthy of recording, as the accidental presence of cheese mites in urine must be extremely rare, and not without interest.

I am, Sir, yours truly,
Mid Calder, January, 1864. PETER WHITE, L.R.C.S.E.

Chemicus.—Glonoine is produced by treating glycerine with a mixture of nitric and sulphuric acids. When heated, it explodes with great violence. It is one of the most powerful explosive substances known, though not yet applied to any useful purpose. It is also a powerful poison.

Sarsa and Hemidesmi.—It would not answer.

L.S.A.—The decisions hitherto have been contradictory. The question can only be decided finally by the superior courts.

Infra Dig.—They confer no title whatever.

Y. P. T. must send us his name and address. He shall then receive the information he requires.

T. W. R. appears to have been subjected to unjustifiable harshness; but as the narrative which he has forwarded to us is incomplete, and necessarily an *ex-parte* statement, we regret we cannot give it publicity in our columns.

MR. HOLT'S CASE OF HYSTERIA.

To the Editor of THE LANCET.

SIR,—I read with much interest this case in your issue of the 16th instant. It is excellently described by Mr. Holt, and must have set all your readers to task themselves with some *rationale* of the disease. If anything were wanting in the description, it is a more detailed statement of the remedies used in the Ospedale Maggiore. We are informed that the patient had suffered from "intermittent fever of a few days' duration," and from this and the other facts of the case I would hazard the surmise that the disease is one of *undeveloped ague*, and the treatment would then be quinine in large doses, and especially so if there be any affection of the spleen.

I beg to throw out this suggestion for any further consideration which Mr. Holt might feel disposed to give to so interesting a case.

I am, Sir, your obedient servant,
Hanley, January, 1864. J. F.

O. O.—It is stated that the coloured troops sent to Mexico by the French have not suffered from yellow fever, while the white troops have been swept off in great numbers by the disease.

Dr. P. W. Latham's communication arrived too late for insertion this week. It shall appear in our next.

Forensicus.—According to M. Parisot, water is only absorbed by the body of a corpse at the palms of the hands and the soles of the feet.

Mr. Dickson is thanked for his polite offer.

A Subscriber wishes to be informed whether joints which have received injuries are more likely to be affected by the poison of rheumatism or gout than those which are in a normal condition.

Miseria.—The surgeon in attendance could answer the question.

Bell's Genuine Arrowroot.—We have examined a sample of this arrowroot, and find that, while the price is moderate, it is of a very superior quality.

ROTHERHAM DISPENSARY.

To the Editor of THE LANCET.

SIR,—Seeing in your number of January 23rd the announcement of the election of "two" medical officers to the above dispensary, I beg you will correct the same, as one only had that honour. It ought to have read thus:—Mr. W. Oxley, M.R.C.S.E., &c., *vice* Dr. Robinson, and not *vice* H. Wilkinson, M.R.C.S.E. Mr. Robinson was elected some two years ago to act *pro tem.* for Mr. Wilkinson, when he became incapacitated.

I am, Sir, yours, &c.,
Rotherham, January, 1864. VERITAS.

V.—It is not unusual in courts of law for a medical practitioner to prompt the advocate to the questions he may put to a medical witness under examination. Where the prompter displays judgment and courtesy, he may succeed in eliciting information valuable to both judge and jury. He exceeds his duty, however, when he pursues a contrary course.

Dr. Moorhead's paper shall be published in an early number.

THE USE OF GREEK WORDS.

To the Editor of THE LANCET.

SIR,—I have for some time noticed with surprise the growing tendency of medical writers to make use of *big words* of Greek origin and obscure meaning, in preference to the word or phrase of the same meaning in common use. To such an extent has this reached, that it is now almost impossible to read even a number of your journal, if one's Greek has grown rusty, without either a "Hoblyn" or a Lexicon at one's elbow.

To select but two instances. A few months ago, in reading THE LANCET, I came across the word "polydipsia," meaning urgent thirst, and in the number for the 10th October last is the word "prodromata," meaning forerunners or precursors. In both instances I think the ordinary expression of Saxon, or in the latter case of Latin origin is quite as euphonious, and more expressive.

When you can by one Greek word express the meaning of three or four English ones, I can perfectly understand the propriety of using it; but to reject a plain English phrase for an ugly Greek word, neither shorter nor more expressive, savours, I think, very strongly of pedantry; and I believe the best and purest writers of the present day endeavour to clothe their thoughts in the plainest language which fully expresses their meaning.

I am, Sir, yours, &c.,
Stanhope, January, 1864. W. C. A.

Non-Contagion.—Five resident medical officers have died from continued fever within the last nine months, contracted within the wards of Bellevue Hospital, New York. During the same period ten more of the staff have passed through fever, and have recovered or are now convalescing. Surely this is some proof of infectiousness.

ANSWERS to several correspondents are unavoidably postponed until next week.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Gamgee, Edinburgh; Dr. Forbes Winslow; Mr. Critchett; Mr. Harben; Dr. White, Warrenside; Dr. Hawkes, Salisbury; Dr. Thursfield, Barrow; Mr. Smith, Bridbury; Mr. Lloyd, Barham; Mr. R. Davis, Manchester; Dr. Buchanan, Glasgow, (with enclosure;) Mr. Clark, Brownhills, (with enclosure;) Mr. I. B. Brown; Dr. Cornaz, Neuchatel; Mr. Bullock, Warwick, (with enclosure;) Mr. Goddard, Leominster; Mr. Winter Scott; Mr. Aitken, Inverness; Dr. Harvey, Aberdeen, (with enclosure;) Dr. Lennox, Bangor; Mr. Woodford, Ventnor; Dr. Moorhead, Weymouth; Mr. Foster, Birmingham, (with enclosure;) Dr. Dickinson, (with enclosure;) Mr. Daraton, Ashton; Alderman Mechi, Tiptree Hall; Mr. Russell, Eckington, (with enclosure;) Mrs. Turner, Newcastle; Dr. Phelps, Burnham, (with enclosure;) Mr. Nicholson, Hunmanby, (with enclosure;) Mr. S. Hill; Mr. Gambier, Okehampton, (with enclosure;) Dr. Struthers, Edinburgh; Mr. Blyth, Whitchurch; Mr. Dean, Paddock; Mr. Robinson; Mr. G. Rann, Birmingham; Mr. Evans, Lampeter, (with enclosure;) Mr. Byass, (with enclosure;) Mr. Atkinson, Wylam, (with enclosure;) Mr. Ollard, (with enclosure;) Mr. J. S. Turner, Alfreton, (with enclosure;) Dr. Macleod, Ben Rhydding; Dr. Walker, North Frodingham; Mr. Bradshaw, Thurles; Mr. Mitchell, Barrow; Mr. J. A. Jones; Mr. Neeson, Lurgan; Mr. Vernon; Dr. Latham, Cambridge; Dr. Wylie, Errol; Dr. Menzies, Dumfries; Dr. Lowe, Lynn; Mr. Parkinson, Hull, (with enclosure;) Dr. Bain; Mr. Hancock, Bellevue; Mr. Carter, Chapel Allerton; Dr. Straton, Steeple Langford, (with enclosure;) Dr. Anderson, (with enclosure;) Mr. Pell, Armagh; Mr. J. Kearns, Kilkenny; Mr. Groves, Shapwicke, (with enclosure;) Dr. Burder, Clifton; Mr. Parker, Bath; Dr. Gray, Oxford, (with enclosure;) Dr. Leet; L.S.A.; Law Life Assurance Society; Veritas; W. C.; Pathological Society; Beta, (with enclosure;) Anxious; Ethnological Society; X. P. T., (with enclosure;) P. M.; Royal Institution; L.R.C.P. Lond.; Cambridge; Mac; &c.

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Messrs. TWINBERROW & SON beg respectfully to inform the Medical Profession that they have opened a BRANCH PHARMACY at 59B, *Westbourne Grove, Paddington*, where every attention will be paid to the Dispensing of Medicines.

The Preparations in accordance with the *New Pharmacopœia* will be available to the Profession when required.

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FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

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Extract of Letter from Dr. C. KIDD (Author of standard works on Chloroform):—"SIR: Of the value of Chloroform given internally I have no doubt it appears to me in that form an anodyne *sui generis* that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of Chloroform, and, in every way I can, encourage the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many medical men think with me and recommend your compound, but will never prescribe a *secret* remedy. (Signed)

"Sackville-street, Piccadilly, London. April, 1862." "CHAS. KIDD, M.D. and Surgeon.

Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J.P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.

"After an extensive trial of your Chlorodyne in hospital, infirmary, and private practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in BRONCHIAL, SPASMODIC, and NEURALGIC AFFECTIONS.

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